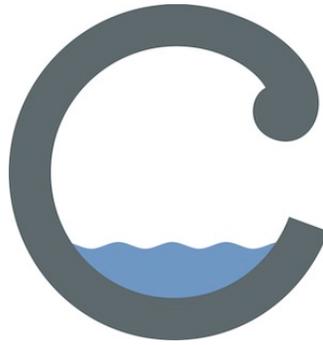


**Waller Creek District
Creek Corridor Framework Phase Plan**

Proposing Party: Waller Creek Conservancy



**May 12, 2014
REV May 22, 2014**

Waller Creek District Creek Corridor Framework Phase Plan

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Waller Creek Conservancy
PO Box 12363
Austin, Texas 78711
512-541-3520
www.wallercreek.org

May 12, 2014

Ms. Sue Edwards
Assistant City Manager
City of Austin

Mr. Tom Meredith
Vice President
Waller Creek Local Government Corporation

RE: Waller Creek District – Creek Corridor Framework Phase Plan

Dear Sue and Tom:

Enclosed herewith you will find the full Creek Corridor Framework Phase Plan. This Phase Plan for the Waller Creek District Project is the first step involving in-depth design and engineering consistent with the Council approved Design Plan prepared by Michael Van Valkenburgh Associates. This scope of work will look at the health and welfare of Waller Creek following the creation of the tunnel. On the following pages you will find a project narrative and executive summary along with detailed scope of work documentation.

The Joint Development Agreement, Section 3, identifies the documentation required for each Phase Plan. The attached matrix identifies all of the submission requirements and those applicable to this applicable scope of work and where they can be found in this document.

If you have questions or concerns, please let me know and we will address them quickly.

Sincerely,

Gretchen Flateau
Executive Director
Waller Creek Conservancy

The Phase Plan described in this document has been reviewed and approved specific to the scope described herein.


Ms. Kristin Pipkin
Responding Party
Water Protection Department
City of Austin

5/22/14
Date


Ms. Sue Edwards
Responding Party
Assistant City Manager
City of Austin

5/22/14
Date

**Waller Creek District Phase Plan Proposal Checklist
Creek Corridor Framework Plan**

✓	#	Section	Topic	Description	Notes
		3.02.B	Responding Party Review	Complete before submission to LGC	
		3.02.B.(i)	Cover Letter		
		3.02.B.(ii)		Date of submission	
		3.02.B.(iv)		Identify the provision in the JDA calling for the submission	
	1	3.04.A.1	General	Exec Summary with narrative	pg 4
	1a			Schedule with milestones	pg 8 and Exhibit B
	1b			Implementation Plan	Exhibit D
	2	3.04.A.2 (i)	Identify Team	List all professionals and their discipline	Pgs 6, 7
	2a	3.04.A.2 (ii)	Contracting Method	Proposed Construction Delivery Method	Pg 7
	2b	3.04.A.2.(iii)	Designate the Reviewer of Construction Schedule	Project Director or Managing Party	N/A - no construction is included in this scope of work
	2c	3.04.A.2 (iv)	Graphical Material	Prelim site plans, architectural plans, elevations, other design materials	N/A - graphic materials will be generated as a part of this scope of work
	3	3.04.A.3	District Map	Map of District showing Limits of Phase Plan Area	Exhibit A
	4	3.04.A.4	Project Budget	All Phase Plan costs including allowances and contingencies	Pgs 9, 10
	4a		Funding Sources	list source	Kim Springer
	4b		Funding Sources	list where funds are to be held	Kim Springer
	4c		Funding Sources	list constraints on use of funds	Kim Springer
	4d		Post Construction Budget	capital repair, operating and maintenance budgets	N/A - no construction is included in this scope of work
	5	3.04.A.5	Cost Overrun Plan	identify how any cost overruns will be funded	pg 10
	6	3.04.A.6	Compliance with Foundational Articles	If the proposed project does not comply with the terms of the JDA, the proposed modification to the JDA is provided here.	pg 7
	7	3.04.A.7	Third Party Agreements	Outline any third-party agreements that will need to be obtained	N/A - none contemplated in this scope of work
	8	3.04.A.8	Property Procurement Process Requirements	Local Government Code Sections 252 and 271	pg 9
	9	3.04.A.9	MWBE Participation	Outline plan	Not required by the JDA
	10	3.04.A.10	Public Improvement Projects	Identify responsibilities for obtaining approvals from Government Authorities for design and construction	N/A - none contemplated in this scope of work
	11	3.04.A.11	Operations Permits	Plan for obtaining approvals and permits for operations	N/A - none contemplated in this scope of work
	12	3.04.A.12	ID and Mapping Easements	Identify and map all easements and other real property interests.	this work will be done within the scope of multiple phase plans as required
	13	3.04.A.13	Requirements on Use of Funds	Identify any requirements that apply to the use of tax-exempt obligations, grants or other funds	N/A - none contemplated in this scope of work
	13a			Texas Transportation Code Chapter 431	N/A - none contemplated in this scope of work
	13b			City Code and Other Applicable Law	N/A - none contemplated in this scope of work
	14	3.04.A.14	Insurance and Bonding	Provision of insurance and bonding in Article 9	Exhibit T
	15	3.04.A.15	Use by City	Identify terms for use by the City	N/A - none contemplated in this scope of work
	16	3.04.A.16	Activities and Rates	Identify activities by groups	N/A - none contemplated in this scope of work
	17	3.04.A.17	Maintenance in ROW's	Identify of maintenance of District ROW's	N/A - none contemplated in this scope of work
	18	3.04.A.18	Utilities	Identify how utilities will be provided, cost of services, metering etc	N/A - none contemplated in this scope of work

Waller Creek District Creek Corridor Framework Plan

May 7, 2014, REV May 19, 2014

EXECUTIVE SUMMARY

The Waller Creek District will experience tremendous change over the next several years. Completion of the Waller Creek Tunnel project will significantly alter the creek's hydrologic conditions as well as trigger the rapid redevelopment of the adjacent upland urban fabric. Many of these development projects have already begun planning and design work, and their potential impacts to the ecology and public experience of Waller Creek demonstrate a pressing need for a framework of priorities, sequencing, and program.

With the creek channel as the organizing element, this Phase Plan will create a guiding framework for the Waller Creek corridor, in the form of detailed cross-sections, typical stabilization sections, an updated creek corridor plan, perspective renderings, diagrams, and supporting technical memos; all of this work will be synthesized by MVVA into a Creek Corridor Framework Plan narrative and graphic document. Hydrological and hydraulic ("H&H") modeling is a critical part of this work; designs will be tested in the H&H models and the output from these tests and will iteratively inform design decisions.

Known private development projects and existing easements will be documented and verified in concert with the sizing and conceptual alignment of the public trail system. This information will be assessed in the context of current stream bank physical conditions, existing stream health and the potential for optimizing ecosystem services. Throughout the framework planning process, the team will evaluate possible creek corridor development scenarios (both public and private) and support the Waller Creek Design Review Team. Critical to these evaluations will be considerations of the influence of storm water inputs and managed creek hydrology on creek geomorphology, bank stability, sediment movement, water quality and stream ecology. Evaluations will be performed using models and other technical tools, developing a framework for iteratively and holistically informing future decisions. The Creek Corridor Framework Plan will form the basis of scope for future design, restoration, and construction projects. The completed Framework Plan document will also be used as the basis for a cost estimate, to be performed by an independent cost estimator, but informed and supported by information supplied by the MVVA Team and the City of Austin.

For this scope of work, the “Waller Creek Corridor” is defined as the creek channel itself, from 15th Street to Lady Bird Lake, plus the area from top of bank to the nearest right-of-way, inclusive of properties sufficient to encompass possible limit of construction of creek trail alignment. See Exhibit A, Project Area Diagram.

NARRATIVE

This scope of the Phase Plan is to address the health and welfare of Waller Creek from 15th Street to Lady Bird Lake. This work will involve landscape architects, hydrologists, ecologists, soil scientists, geotech and civil engineers, and public space management consultants. The work will include the evaluation of and recommendations for the trail alignment, stream banks and hydrology of the creek. Sedimentation, ecological flow management and water quality will be examined. Cross-sections of the creek (two per block) will evaluate the alignment of the creek, the topographics of the banks and the properties abutting the creek. The product of this work will be a detailed report that will form the basis of design and engineering work going forward to future phases ultimately resulting in construction of improvements.

In accordance with the terms and conditions of the Joint Development Agreement (JDA), the Waller Creek Conservancy (WCC) is the Proposing Party. Michael Van Valkenburgh Associates, Inc. (MVVA) and their sub consultants shall perform the work of this Scope of Work. This work will be performed in close collaboration with the Watershed Protection Department (WPD) and other relevant City of Austin (COA) stakeholders. All Services performed under this Scope of Work shall be performed in accordance with the JDA and applicable codes, and accepted industry standards. The Waller Creek Conservancy represented by Benz Resource Group serves as the Managing Party.

PERFORMANCE PERIOD

The Services required by this Scope of Work shall be provided from June 2, 2014 through March 2015.

PROJECT IDENTIFICATION

Project Title: Waller Creek District Creek Corridor Framework (or “Project”)

Project Location: Austin, Texas (See Exhibit A for Project Area Diagram)

POINTS OF CONTACT

Managing Party:

Waller Creek Conservancy

Project Manager: Susan Benz, Benz Resource Group benz@benzresourcegroup.com (512-220-9542)

City of Austin Contact:

City of Austin, Watershed Protection Department

Kristin K. Pipkin, kristink.pipkin@austintexas.gov (512-974-3315)

Mike Kelly, Mike.Kelly@austintexas.gov (512-974-6591)

Other contacts:

Waller Creek Conservancy

Interim Executive Director: Gretchen Flatau exec.dir@wallercreek.org (512-541-3520)

Consulting Team Lead:

MVVA President and CEO: Michael Van Valkenburgh, Michael@mvvainc.com (718-243-2044)

MVVA Project Manager and Point of Contact: Danielle Choi, dchoi@mvvainc.com (718-243-2044)

MVVA Principal: Gullivar Shepard, gshepard@mccainc.com (718-243-2044)

CONSULTANT TEAM LIST

The following subconsultants will be part of MVVA's design team and the associated scopes, schedules, deliverables, budget, and fees are included in this proposal. Please See **Exhibit E** for Organization Chart.

- Team Lead, Landscape Architect: Michael Van Valkenburgh Associates, Inc. (MVVA)
- Hydrologist: LimnoTech
- Local Landscape Architect: dwg
- Civil Engineer: Big Red Dog Engineering

- Local Ecosystem Services Design: Lady Bird Johnson Wildflower Center Ecosystem Design Group
- Team Ecologist: Applied Ecological Services
- Soil Scientist: Olsson Associates
- Geotechnical Consulting: GeoSolutions
- Public Space Management Consulting: ETM Associates
- Urban Design: Greenberg Consultants
- Project Management, Managing Party: Benz Resource Group
- Cost Consulting: Vermeulens Costs Consultants
- Surveying: To Be Determined
- Title Company: To Be Determined

Consultants which are not currently included, but which may be required during this Phase Plan are: registered accessibility specialist (Texas RAS). Proposals from these consultants (and other additional disciplines) may be added upon approval from client.

CONTRACTING METHOD

All of the consultants and sub consultants included in this scope of work are under contract directly to the Waller Creek Conservancy. MVVA and their sub consultants are currently working under an ongoing Preliminary Services Agreement (PSA) that was put in place in January 2013. The WCC and MVVA are in the final stages of negotiation of a Master Services Agreement (MSA) and the Preliminary Services Agreement will become a part of the MSA.

All of the consultants and sub consultants identified by name in this Phase Plan were under agreement prior to the execution of the JDA.

COMPLIANCE WITH FOUNDATIONAL ARTICLES OF THE JDA

All work proposed in this Phase Plan are in compliance with the Foundational Articles of the JDA.

SCHEDULE

The Services required by this Scope of Work shall be provided from June 2, 2014 through April 2015.

MVVA team fees have been calculated based on the following schedule, which is shown in greater detail in **Exhibit B, Project Schedule**.

June 2, 2014	Notice to Proceed
June – September 2014	Program Verification and Baseline Creek Sections
June – September 2014	Hydraulics and Hydrology Discovery
September 2014 – April 2015	Bank Stabilization Strategy; Iterative Hydraulics and Hydrology Modeling; Advanced Creek Sections; Production of Framework Plan Document
March – April 2015	Support of Preliminary Engineering Cost Estimate
Ongoing	Review Emerging Public and Private Developments; Creek Corridor Survey

GENERAL SCOPE OF SERVICE REQUIREMENTS

This element of work shall consist of the preparation of a Program Verification document and a final Waller Creek Corridor Framework Plan document. All Consultant documents shall be prepared using the English System of Weights and Measurements. It is assumed that hard copy and .PDF drawings are acceptable formats for submissions; AutoCAD files developed for advanced creek sections will be included with the final deliverable for task. The final deliverable is expected to be a graphic document containing AutoCAD (vector-based) sections; additional illustrative rendering of the advanced creek sections will be considered an additional service. The final deliverable will also include other supporting graphic material and a written narrative. Modifications and additions to existing hydraulic and stormwater models will be documented in technical memoranda in .PDF format, and numerical model input files and supporting GIS project data will be maintained and submitted to COA as a deliverable.

The project will require extensive coordination with the City of Austin Watershed Protection Department (WPD). Additional City of Austin departments to be included are the Planning and Design Review (PDR) and the Parks and Recreation Department (PARC). It is anticipated that MVVA will meet with key members from these departments on a monthly basis, with sub-consultants included as needed. Other COA agencies that will require coordination include, but are not limited to: the Office of Real Estate Services, the Department of Public Works (including the Urban Trails and Sidewalk Program), and the Austin Transportation Department. In the scope of work (Exhibit C), these meetings are referred to as “COA

Internal Stakeholder Workshops.” The identification and mapping of all easements and other real property interests will require close coordination with the Office of Real Estate Services. Any acquisitions either by fee simple or easement, will follow the Office of Real Estate’s Standard Operating Procedures for approvals, land plans, land title surveys, Environmental Site Assessment Plans I and II and title policies.

Because this scope of work is primarily planning, the identification of maintenance standards and operating costs with respect to the whole is not applicable. However, there will be work evaluating future maintenance criteria with respect to types of slope and channel restoration strategies, and with respect to the division of future maintenance responsibilities.

A detailed description of scope and deliverables is in Exhibit C, Scope Matrix, and a description of the interaction among consultants and key stakeholders toward the production of deliverables is described in Exhibit D, Implementation Plan. Any perceived additional services must be identified and approved in advance of taking action. In the event that the schedule outlined is significantly extended at the request of the Client or reviewing agencies, and at no cause by the Consulting Team, additional services are to be proposed and authorized.

PROJECT BUDGET

Services will be performed on a “not-to-exceed” fee basis in accordance with the scope and schedule herein defined. The fees are as follows:

MVVA Team - \$1,427,950
Benz Resource Group - \$94,640
Vermeulens Cost Consultants - \$50,700
Total - \$1,573,290

In addition, estimated reimbursable expenses are:

MVVA Team: \$146,691
Benz Resource Group: \$6,000
Vermeulens Cost Consultants: \$1,450
Total: \$154,141

Allowances:

Site Surveying Allowance - \$100,000

Reserve Funds - \$50,000

Grand Total of fees, reimbursable expenses and allowances: \$1,877,431

In addition to the fees and expenses noted above, the Waller Creek Conservancy will be participating in many of the meetings, private development coordination and reporting. The financial impact to the Conservancy is expected to be roughly \$72,000, the costs of which they will bear separately.

“The City of Austin (City) will contribute an amount not to exceed \$1,877,431 toward the Creek Corridor Framework Phase Plan. In accordance with Section 10.01 (Project Disbursement Fund Account) of the Joint Development Agreement between the City of Austin, Waller Creek Local Government Corporation, and Waller Creek Conservancy, upon approval of regularly submitted invoices by the Conservancy, the City will disburse payment accordingly to the appropriate Project Disbursement Fund Account.” See Exhibit U – Capital Needs Projection

COST OVERRUN PLAN

In accordance with Section 3.04.A.5 of the JDA, the identification of the source of funds for cost overruns is included above. The use of this Reserve is to be approved by both the Proposing Party and the Responding Party. Any request for change exceeding the total funds of \$1,877,431 will require an amendment to this Phase Plan, including identification of the source of funding, and will require approval of the Proposing Party and the Responding Party.

MVVA team fees and estimated reimbursable expenses are shown in Exhibit F, Fee and Expense Summary. Individual consultant fee proposals are included in the attached exhibits,.

Services will be performed on a “not-to-exceed” fee basis, assuming that the schedule is not significantly extended beyond March 2015. Given the rapidly changing nature of development conditions around the creek, and the nearly inevitable discovery of unforeseen issues as part of the planning process, MVVA reserves the right to re-apportion fees and expenses among tasks and sub-consultants upon review and

approval of the client.

LIST OF EXHIBITS

EXHIBIT A	Project Area Diagram
EXHIBIT B	Project Schedule
EXHIBIT C	MVVA Team Scope Matrix
EXHIBIT D	Implementation Plan
EXHIBIT E	Organization Chart
EXHIBIT F	MVVA Team Fee and Expense Summary
EXHIBIT G	MVVA Team Fees by Task
EXHIBIT H	Benz Resource Group Scope and Fee
EXHIBIT I	Vermeulens Cost Consultant Scope and Fee
EXHIBIT J	Applied Ecological Services Scope and Fee
EXHIBIT K	Big Red Dog Scope and Fee
EXHIBIT L	DWG Landscape Architects Scope and Fee
EXHIBIT M	ETM Scope and Fee
EXHIBIT N	Geosolutions Scope and Fee
EXHIBIT O	Greenberg Consultants Scope and Fee
EXHIBIT P	LBJ Wildflower Center Scope and Fee
EXHIBIT Q	Limnotech Scope and Fee
EXHIBIT R	MVVA Fee Detail
EXHIBIT S	Olsson Associates Scope and Fee
EXHIBIT T	Insurance Certificates
EXHIBIT U	Capital Needs Projection
EXHIBIT V	JDA Procurement Requirements
EXHIBIT W	Funding Letter

EXHIBIT A: PROJECT AREA DIAGRAM

Creek Corridor Framework Plan Scope Boundary



- Minimum 2 creek cross-sections per block, from 15th Street to Lady Bird Lake
- Review of public and private development adjacent to Waller Creek

EXHIBIT C - MVVA TEAM SCOPE MATRIX (5/9/2014)

Waller Creek Corridor Framework Plan

X	x	R	2
team lead	team member	review only	# meetings

Task 1 - Project Management and Meetings

MVVA will provide lead project management and be the primary point of contact for the consultant team.

- KEY DELIVERABLES:
- Monthly status report
 - Project schedule (updated as needed)
 - Meeting agendas and minutes
 - Meeting attendance

- KEY ASSUMPTIONS:
- Meetings not included in this scope are: PARD Board Meetings, LGC Meetings, and Core Department Lead Team Meetings
 - Travel for out of town consultants assume that (2) two meetings can be scheduled in a single business day
 - "Person Trip" example: 1 trip x 3 people attending = 3 person-trips. Alternatively, 3 separate trips x 1 person attending = 3 person-trips

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	Greenberg Consultants Urban Design
Project Management											
1.1	Project coordination and monthly status reporting (includes meeting agendas and minutes). Also includes coordination with concurrent activities of Waller Creek Conservancy and COA Core Department Lead Team	X	X								
1.2	Project coordination among sub-consultant team	X	X								
1.3	Maintain and update project schedule	X	X								
1.4	Coordination of concurrent work in other Phase Plans or WCC projects	X	X								
Meeting Attendance Assumptions											
1.5	COA Internal Stakeholder workshops (max. 5) and monthly coordination meetings in Austin. (Includes Kick-Off site walk)	17	5	2	2	2	2	2	2	2	
1.6	WCC Board Meetings	4		1		1					
1.7	Additional meeting allowance (e.g. Meetings with private developers, etc.)	8	2	4	2						10
1.8	Maximum person-trips for out of town consultants (assumes 2 meetings can be scheduled per business day).	32	7				4	2		3	5

Waller Creek Corridor Framework Plan

Task 2 - Program Verification and Analysis (16 weeks)

Program Verification will be the first task of the Creek Corridor Framework Plan. There are two main goals for this phase. First, the team will verify the understanding of baseline conditions in the corridor, building upon the creek assessment work already performed to date by COA. Second, the team will analyze the initial trail alignment identified and documented in plan by MVVA with respect to these baseline conditions. During this time, the team will work with the WCC and CoA stakeholders to identify key goals and specific deliverables for the duration of the Phase Plan, and determine the criteria for achieving these goals.

KEY DELIVERABLES:

- Plan of preliminary trail alignment (complete by kick-off site walk)
- Baseline creek sections (min. 2 per block, complete by kick-off site walk)
- Digital CAD files of baseline creek sections (~~layout in sheets and rendering, etc. are excluded from this scope~~)
- Plan drawings indicating potential easement acquisitions and critical areas for streambank restoration

Program Verification Document as .PDF, which will include:

- Plan of known upland development conditions
- Corridor-scale plan of confirmed trail and bank conditions
- Updated creek sections (min. 2 per block) showing existing grades, proposed trail elevations and widths, and preliminary landscape conditions
- Written memo describing and trail alignment strategy
- Meeting minutes and field notes from kick-off site walk
- Documentation of key issues raised during stakeholder meetings

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	TBD
2.1	Kick-off site walk with WPD staff to discuss existing conditions and potential opportunities (included as meeting in item 1.6), as well as visit local reference geomorphic cross sections. Participants will use the findings of the WPD Functional Assessment of Streambank Health to set common goals for subsequent tasks, and also be familiar with background materials provided by WPD, including: - Lower Waller Creek Field Guide - Other reports provided by WPD/COA	X	X	X	X	X	X	X	X	X	
2.2	Plan Documentation (Upland): - Known private development projects - Recommendations for possible property acquisitions - Recommendations for possible easement acquisition or alteration - Identification of potential tie-in points to public trails or ROWs	X	X	R	R						
2.3	Plan Documentation (Creek Corridor): - Identify trails in need of restoration or reconstruction - Initial draft of new trail alignments - Confirm significant challenges to streambank stability and conflicts/opportunities in Tunnel-related modifications	X	X	R		R	R		R		
2.4	Establish and verify sections (minimum 2 per block) to be documented in Creek Corridor Framework	X	R	R			R				
2.5	Develop trail alignment strategy	X		R	R	R	R	R	R		
2.6	Identify potential utility conflicts based on existing survey information, known public and private upgrade projects, and field verification	X		X	X						

Waller Creek Corridor Framework Plan

Task 3 - Discovery: Hydraulics and Hydrology (16 weeks)

This task will run concurrently with Task 2 (Program Verification and Analysis). LimnoTech staff will work with WPD to develop refinements to the existing HEC-HMS and HEC-RAS modeling, including changes to the system since the modeling was completed, addressing areas needing more detailed information, incorporating proposed development changes to stormwater inputs, and other elements that could affect the hydrology and/or hydraulics. The developed set of tools and supporting documentation will be delivered to WPD, and will provide a well-resolved representation of baseline conditions as the design development initiates. The modeling tools and supporting data will serve as a primary basis for technical interaction with the design team during framework plan development.

KEY DELIVERABLES:

- Memo documenting model updates and results
- Memo documenting stormwater inputs
- Memo documenting flow scenarios and evaluation of capacity to develop an ecological flow regime
- Memo documenting evaluation of known proposed developments (tunnel infrastructure) with respect to creek hydraulics and water quality
- Digital versions of HEC-HMS and HEC-RAS model iterations in addition to version logs and run logs for each

KEY ASSUMPTIONS (Information provided to consultant team from CoA):

- Drainage areas in AutoCAD and/or GIS
- Confirmation of current version of HEC/HMS and HEC-RAS models

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	TBD
3.1	Refinement of models for baseline post-tunnel stormwater hydrology; updates to improve resolution of project reaches; review and refinement of surface water-tunnel interactions, drop shaft performance, as needed	R	X								
3.2	Disaggregation of stormwater inputs, documentation of changed resolution of input where not originally captured in model (i.e. changes to peaks or timing of storm drain system as a result of new construction projects)	R	X	R	X						
3.3	Evaluation of the capacity to develop an ecological flow regime in Waller Creek	R	X			R	X				
3.4	Initial assessment of known development impacts of tunnel project (such as Waterloo Park dam on creek hydraulics, sediment loads and water quality)	R	X				R	R			
3.5	Iteratively update model representation of modified extreme flow scenarios, such as: - Colorado River flooding conditions - Altered management of Lady Bird Lake: Tom Miller and Longhorn Dams - Management of excess flow, tunnel inlet/side flow weir failure conditions	R	X				R				

Waller Creek Corridor Framework Plan

Task 4 - Iterative Modeling: Hydraulics and Hydrology (36 weeks)

This task runs concurrently with Task 5 (Creek Corridor Framework Plan). Following the development of a strong baseline set of modeling tools in Task 3, LimnoTech staff will work with MVVA and WPS to iteratively update the hydrology and hydraulic modeling to evaluate design concepts, understand conflicts, highlight potential problem areas and potential development impacts, and risk factors based on the revised hydraulics and water surface elevations. Based on this analysis, LimnoTech staff will provide recommendations for creek channel and other structure modifications, and potential mitigation measures to address streambank stability, water quality, scour, and erosion.

KEY DELIVERABLES:

- Memo describing model updates and results, public and private infrastructure impacts, project corridor constraints, risk factors in terms of extreme flow events, and bank stabilization and mitigation recommendations.
- Plan view drawings describing multiple scenarios of H&H modeling and text.
- Memo describing model updates and results, public and private infrastructure impacts, project corridor constraints, risk factors in terms of extreme flow events, and bank stabilization and mitigation recommendations.
- Digital versions of HEC-HMS and HEC-RAS model iterations in addition to the version logs and run logs for each.
- Screen shots of interim sections or profiles from the model throughout the iterative modeling and design process.

KEY ASSUMPTIONS:

- WPD and CoA stakeholders will perform reviewer roles in task 4.4

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	TBD Geologist
H&H Analysis											
4.1	Iteratively update HEC-RAS Model with: - Modifications to Waller Creek Tunnel contract - Multiple scenarios for proposed trail alignments and retaining structures - Multiple scenarios for proposed private and public development in creek corridor - Possible modifications to stormwater outfalls	R	X				R				
Risk Analysis											
4.2	Risk analysis of public trail system development (e.g. frequency of trail inundation)	R	X				X				

Waller Creek Corridor Framework Plan

**(continued) Task 4 - Iterative Modeling:
Hydraulics & Hydrology**

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	TBD
Channel Stability											
4.3	Provide recommendations for alternatives and mitigating techniques where bank stability conflicts are identified	X	X	X	X	X	X	X	X		
4.4	Assess impacts of modifications and proposals described in 4.2 and 4.4 on localized bank stability and channel scour, water quality and sediment dynamics, and overall creek corridor hydraulics	R	X			R	R	R	R	R	
4.5	Identify and evaluate opportunities for stormwater outfall modifications to mitigate scour and improve water quality	R	X	X	X	X					
4.6	Identify opportunities for upland and in-channel ecosystem services: - Evaluate expected improvements to water quality (solids, nutrients, temperature) under tunnel diversion and implications for improved ecology - Identify opportunities for harvesting sources of improved water quality in upland drainage areas - Propose and evaluate modifications to stream morphology (weirs, pools, riffles, debris, bottom substrate), channel geometry (channel banks and bottom), and channel boundary material (rock/vegetation)	X	X	R	X	X	X				
4.7	Review of Waller Creek Tunnel Upland Water Quality Study Phase B1 describing possible stormwater retrofit opportunities. Incorporation of relevant recommendations into proposed modeling scenarios and section design	R	R				R				

Waller Creek Corridor Framework Plan

Task 5 - Creek Corridor Framework Plan (32 weeks)

This task runs concurrently with Task 4 (Modeling: Hydraulics & Hydrology). Design concepts initiated during Program Verification (Task 2) will be advanced and modeled by LimnoTech, who will then provide feedback related to hydraulics and hydrology. This feedback will be iteratively incorporated back into adjustments to the design. The Creek Corridor Framework Plan will synthesize the analytical work performed in Tasks 2, 3, and 4 into a written and graphic document. At the core of this document will be advanced creek sections that will show block-by-block design of the creek channel, streambank restoration, public trail layout, and interaction with upland development (both structures and opportunities for ecological services).

KEY DELIVERABLES:

- Creek Corridor Framework Plan Document, a written and graphic report which describes proposed improvements to the Waller Creek corridor, including:
 - Advanced creek sections, showing channel bottom, bank stabilization techniques, slopes, trail elevation and materials, future flood levels, conceptual planting strategies, and proposed top of bank conditions (AutoCAD files)
 - Typical sections for streambank stabilization and stream health restoration
 - Plan documentation of proposed trail alignments, conceptual planting strategies, and proposed top of bank conditions
 - Graphic overlays on site photographs ("sketch renderings") to communicate design concepts
 - Presentation-quality perspective renderings (maximum 8) showing design intent and character of proposed trail system, creek corridor improvements, and surrounding context (for example, creek channel, trail, adjacent bridges, and private upland development)
 - Supporting diagrams for above, including relationships to ongoing projects, related urban systems, proposed phasing and high-priority areas
 - Supporting technical memos

KEY ASSUMPTIONS:

- Creek Corridor Framework Plan Document will be delivered as .PDF and a maximum of (10) professionally printed and bound copies.
- Maximum (8) presentation-quality perspective renderings to be created specifically for Framework Plan. Additional renderings for fundraising, public outreach, etc. will be considered an additional service

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	TBD Registered Accessibility Specialist
Advanced Creek Section Design											
5.1	Document revised trail alignments on private and public land	X	R		R						
5.2	Document proposed modifications to retaining structures and sub-grade structures on adjacent parcels	X	R		X						
5.3	Assign typical sections to streambank landscape types, stream health restoration and stabilization	X	X			X	X	X	X	R	
5.4	Assign typologies of top of bank run-off management opportunities	X	X		X	R	X		X		
5.5	Assign typologies of opportunities to modify stormwater outfalls to minimize conflicts with public program and hindrance of public trail access	X	X		X	R			X		

Waller Creek Corridor Framework Plan

(continued) Task 5 - Creek Corridor Framework Plan

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	TBD Registered Accessibility Specialist
Synthesis and Documentation											
5.6	Comparative analysis of maintenance & operations issues for creek corridor typologies in other public spaces. Work with WCC and COA to anticipate possible future M&O responsibilities specific to creek corridor	X	R							X	
5.7	Assess and document trail alignment (new trails and connections to existing) for adherence to applicable accessibility codes and standards	X		R							X
5.8	Perspective renderings (presentation-quality, max. 8), depicting character of proposed public trail system within creek corridor	X									
5.9	Draft (2) Framework Plan Document	X	R	R	R	R	R	R	R	R	
5.10	Final Framework Plan Document	X	R	R	R	R	R	R	R	R	
5.11	Provide support documentation to WPD for identifying necessary permits and submitting permit documents as needed (should be based on drawings already produced for Framework Planning efforts)	X									
5.12	Coordinate with COA arborist and Urban Forester to assess possible impacts of proposed design to existing Heritage Trees and other significant vegetation on site. COA to perform technical assessment.	X		X							
5.13	Coordinate with COA Urban Trails Program and review relevant guidelines, including AASHTO Design for Bikeway Guide, NACTO Urban Bikeway and Urban Street Design Guides, and ADAAG Accessibility Guidebook for Outdoor Recreation and Trails	X									

Waller Creek Corridor Framework Plan

Task 6 - Review Emerging Public and Private Development (32 weeks)

This task will apply the ongoing modeling, analysis, and synthetic design work being performed for the Creek Corridor Framework Plan to emerging public and private development in the Waller Creek District. The design team will provide written and graphic comment on these developments (permitting drawings to be supplied by COA) to assess compatibility with the design vision of the public trail system and creek corridor established during the Framework Planning process. This task will also provide technical support to the Waller Creek Design Review Team.

KEY DELIVERABLES:

- Technical briefs of relevant issues, unique to each development parcel
- Written memos, with graphic support, describing recommendations for trail alignment
- Phone and meetings with private developers (max. meetings described in Task 1)
- Supporting concept-level plans and section graphics, created for specific developments, to support recommended strategy (MVVA lead)

KEY ASSUMPTIONS:

- Engineering and detailed documentation (i.e. CAD drawings) of trail alignment recommendations for private developments is not included in this scope of work
- Tasks 6.1-6.3 assume a maximum of (4) private development projects **directly adjacent to Waller Creek for review, in addition to those already under review by MVVA Team under previous scopes of work (99 Trinity, Waller Park Place, Fairmont Grand Hotel).**
- COA/PDR to lead review of permitting assessment related to stormwater and water quality, and make assessments available to consultant team
- COA/PDR to lead review of **code-based** assessment of impacts to public ROWs, Heritage Trees, streambank stability, and stream ecology
- COA identifies opportunities for regulatory stormwater solutions and potential COA cost participation
- PDR and CoA to provide permitting sets submitted for evaluation. H&H modeling of individual private developments is not included in this scope.

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	Greenberg Consultants Urban Design
6.1	Review drawings (as outlined in draft Waller District Guidelines Application Form) of private development in the district for compatibility with the objectives of the approved 2013 Waller Creek Design Plan	X	R	X							
6.2	Assess development plans and potential impacts to proposed public trail alignments, landscape features, and public realm.	X	R	X							
6.3	Review COA assessment of potential impacts of development plans on creek hydrology. (Assumes private developers provide 3D massing model of proposed buildings and structures; new modeling of these elements will be considered an additional service).	R	R	R							
6.4	Assemble relevant information from COA and WCC to align goals for interaction with specific developments. Provide Waller Creek Design Review Team with supporting graphic and written documentation of compatibility with Design Plan and Framework Plan goals.	X	X	R							
6.5	Provide concept-level recommendations, when applicable, for trail alignments and stabilization strategies	X	X	R	R			X	X		
6.6	Participate in conference calls or Go-To Meetings with private developers, COA, and WCC	X	X								
6.7	Participate in meetings in Austin with private developers, COA, and WCC (see Task 1 for maximum number of meetings)	X	X								
6.8	Record relevant alternative development scenarios into Creek Corridor Framework Plan (Task 5)	X	X	R						R	
6.9	Develop program briefs for emerging development (in early stages of creekside program design, before permit applications are submitted) to be compatible with new adjacent creek conditions and corridor programs	X		R	R					R	X

Waller Creek Corridor Framework Plan

Task 7 - Creek Corridor Survey

Given the rapidly evolving nature of property ownership and easement conditions within the creek corridor, it is not efficient to commission a comprehensive, corridor-wide survey at this time. Over the course of the Framework Plan, the team will compile available information about existing and proposed site conditions into a single, 2D plan drawing. As the Framework Plan develops, the team will gain an advanced knowledge of where detailed additional survey information is needed, and will assist the owner in developing a limit of work for this survey.

KEY DELIVERABLES:

- Document describing extents and LOW for physical survey (owner-provided)
- (1) mark-up of draft survey

KEY ASSUMPTIONS:

- WCC/BRG to manage scope and work activities of title company and surveyor

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	TBD
7.1	Compile available property line and existing easement information	X		R	X						
7.2	Coordinate known information with Real Estate Services, WPD, PDRD	X		R	X						
7.3	Document recommended scope and LOW for survey of property lines and easements	X	R		R						
7.4	Document recommended scope and LOW for owner-provided physical survey (topography, trees, structures, etc.) of critical features and known restoration/trail improvement areas	X	R	R							

Waller Creek Corridor Framework Plan

Task 8 - Preliminary Engineering Cost Estimate Support

KEY DELIVERABLES:

- Review and written comment on (2) drafts and (1) final cost estimate by owner-provided estimator
- Provide clarification on sub-project extents
- Provide reference projects, details, and product information not included in Framework Plan documentation

KEY ASSUMPTIONS:

- Independent cost estimator to perform quantity take-offs
- MVVA to provide scaled plan and typical section details
- MVVA to lead review and consult sub-consultant team as needed

		MVVA Project Leader Landscape Architect	Limnotech Hydrologist	dwg Local Landscape Architect	BRD Civil Engineer	LBJ Ecologist/ Ecosystem Services	AES Team Ecologist	Olsson Soil Scientist	GeoSolutions Geotech	ETM Public Space Management	TBD
8.1	Participation in max (3) coordination calls with owner-provided cost estimator, BRG, WPD	X									
8.2	Provide reference projects, product information, typical details, and supporting diagrams not included in Framework Plan documentation, as needed	X	R	R	R	R	R	R	R		
8.3	Review and provide written comment on (1) draft and (1) final cost estimate	X	R	R	R	R	R	R	R	R	

EXHIBIT D: IMPLEMENTATION PLAN

PROGRAM VERIFICATION & ANALYSIS (June- September 2014)

Program Verification will be the first task of the Creek Corridor Framework Plan. The main purpose of this phase is to build upon the creek assessment work already performed to date by COA and evaluate the initial trail alignment identified and documented in plan by MVVA. During this time, the MVVA Team will work closely with WCC, WPD, and COA stakeholders (through monthly meetings and workshops) to identify key goals and specific deliverables for the duration of this Phase Plan, and determine the criteria for achieving these goals.

- MVVA produces plan drawing of current trail alignment and key elevations (trail has undergone modifications during planning work performed during 2013)
- MVVA produces baseline creek sections based on survey information provided during the design competition. There will be a minimum of 2 cross-sections per block, encompassing the creek bed, banks, and the nearest upland rights-of-way, inclusive of properties sufficient to encompass possible limit of construction of creek trail alignment.
- MVVA Team will review WPD documents describing streambank health criteria and incorporate findings from the COA Functional Assessment (performed by WPD)
- Kick-off site walk (to be scheduled to occur within 1 month of NTP) assembling WPD, WCC, and key members of the MVVA Team. Goal is to verify the specific sections along the length of Waller Creek to be documented for the final Framework Plan Document, and examine and discuss stream restoration criteria in the field
- During the kick-off meetings, selected consultants may visit local geomorphic reference cross-sections, to be identified by WPD.
- MVVA Team consultants will deliver field notes to MVVA, who will synthesize and distribute these notes.
- MVVA Team participates in monthly meetings with City of Austin Watershed Protection Department (WPD), Planning and Design Review (PDR), Parks and Recreation Department (PARD) for the duration of this Phase Plan
- WPD/PDR/PARD/WCC will set up five “COA Internal Stakeholder Workshops” with departments including, but not limited to: the Office of Real Estate Services, the Department of Public Works (including the Urban Trails and Sidewalk Program), and the Austin Transportation Department.
- MVVA will review relevant guidelines for trail design, including, but not limited to: AASHTO Design for Bikeway Guide, NACTO Urban Bikeway Guide, NACTO Urban Street Design Guide, and ADAAG Accessibility Guidebook for Outdoor Recreation and Trails.
- MVVA will lead the production of a Program Verification Document, which will:
 - Synthesize the early observations and recommendations of the team in plans (from Lady Bird Lake to 15th Street), diagrams, and overlays on existing conditions photographs
 - Record the sections (minimum 2 per block from Lady Bird Lake to 15th Street) to be documented with advanced designs
 - Record and incorporate the findings of Hydraulics & Hydrology Discovery described below

DISCOVERY: HYDRAULICS & HYDROLOGY (June – September 2014)

This task will run concurrently with Task 2 (Program Verification and Analysis). The primary purpose of "Discovery" is to develop refinements to the existing HEC-HMS (precipitation and run-off) and HEC-RAS (hydraulics and flow) models with information that has changed from baseline to the present. LimnoTech staff will lead this work, addressing areas needing more detailed information, proposed development changes to stormwater inputs, and other elements that could affect the hydrology and/or hydraulics. The developed set of tools and supporting documentation will be delivered to WPD, and will provide a well-resolved representation of baseline conditions. The modeling tools and supporting data will serve as a primary basis for technical interaction with the design team during Framework Plan development. The monthly meetings with COA stakeholders during this phase, as well as the monthly meetings with WPD, are critical to defining the parameters for modeling these changes.

- LimnoTech will review HEC-RAS and HEC-HMS models to verify that they are sufficiently resolved to assess the effects of proposed changes
- LimnoTech will update HEC-RAS and HEC-HMS models:
 - To include MVVA-Team proposed modifications related to the tunnel project (e.g. changes to "lid" and trail at 4th Street Inlet)
 - To refine areas that require additional resolution
 - To refine representation of stormwater inputs
 - To represent modified extreme flow scenarios (e.g. altered management of Lady Bird Lake dams)
- LimnoTech will preliminarily assess the impacts of above on creek hydraulics, sediment loads, and water quality
- LimnoTech will review existing and potential flows in Waller Creek, area reference streams (in collaboration with WPD), and local and national precedents.
- LimnoTech, WPD, and AES will work together to develop an approach for conceptualizing an ecological flow regime for the creek

ITERATIVE MODELING: HYDRAULICS & HYDROLOGY (September 2014 – April 2015)

Following the development of a strong baseline set of modeling tools in Task 3 (Discovery: Hydraulics & Hydrology), LimnoTech staff will work with MVVA and WPD to iteratively update the hydrology and hydraulic modeling to evaluate design concepts, understand conflicts, highlight potential problem areas and potential development impacts, and risk factors. In this task, LimnoTech will also work with the design team and WPD to identify opportunities to refine the design of an ecological flow regime that addresses ecological objectives developed in Task 3. Based on this analysis, LimnoTech staff will provide guidelines for flows, recommendations for creek channel and other structure modifications, and potential mitigation measures to address streambank stability, water quality, scour, and erosion.

- LimnoTech will *iteratively* update the HEC-RAS model to reflect:
 - Multiple scenarios for proposed trail and retaining structures
 - Public and private development proposals
 - Known future modifications to stormwater system

- This work will run concurrently with the production of the Creek Corridor Framework Plan (described below) and Development Criteria (also described below), and will inform both of these scopes of work
- Based on an analysis of hydraulics and hydrology, LimnoTech staff will recommend potential mitigation measures to address streambank stability, water quality, scour, and erosion.
- Other members of the MVVA Team will evaluate these potential mitigation measures for suitability to local development conditions, the provision of ecosystem services, habitat creation, public park program, potential maintenance considerations, etc.
- Using these updates to the design, LimnoTech will then iteratively update the model and document results, including: impacts to public and private development, project corridor constraints, and risk factors.
- The MVVA Team anticipates that this will be an ongoing and evolving process, influenced by feedback from consultants, COA, and WCC.

CREEK CORRIDOR FRAMEWORK PLAN (September 2014 – April 2015)

This task runs concurrently with Task 4 (Modeling: Hydraulics & Hydrology). Design concepts initiated during Program Verification (Task 2) will be advanced and modeled by LimnoTech, who will then provide feedback related to hydraulics and hydrology. This feedback will be iteratively incorporated back into adjustments to advanced trail, streambank, and creek channel design. The Creek Corridor Framework Plan will synthesize the analytical work performed in Tasks 2, 3, and 4 into a written and graphic document. At the core of this document will be advanced creek sections that will show block-by-block design of the creek channel (banks and bottom), streambank restoration, public trail layout, and interaction with upland development (both structures and opportunities for ecological services).

- MVVA will work with LimnoTech to synthesize recommended criteria for bank stabilization, based on the iterative modeling work described above, and distribute to the greater team
- The consultant team will evaluate the results of hydraulic/hydrologic modeling under different types of considerations:
 - Stormwater outfall modifications (dwg, Big Red Dog)
 - Run-off management opportunities (Big Red Dog, AES)
 - Ecosystem services, channel health, and habitat creation (Lady Bird Johnson Wildflower Center, AES)
 - Engineered slope stabilization techniques (AES, Olsson, GeoSolutions)
 - Bank restoration techniques (Lady Bird Johnson EDG, AES, Olsson)
 - See Exhibit C, Scope Matrix, for a detailed description of consultant tasks.
- Internal team “Go-To Meetings,” memos, and sketches will be the initial step in developing advanced designs for creek channel design
- MVVA will iteratively produce supporting graphics to convey character of advanced creek design, including:
 - Advanced creek sections showing channel geometry, bank stabilization techniques, slopes, trail elevation and possible materials, future flood levels, conceptual planting strategies, and proposed top of bank conditions. These will be provided as a deliverable in AutoCAD and .pdf format.

- Typical sections for streambank stabilization and stream health restoration
- Plan documentation of proposed trail alignments, conceptual planting strategies, and proposed top of bank conditions
- Graphic overlays on site photographs (“sketch renderings”)
- Presentation-quality perspective renderings (maximum 8)
- Supporting diagrams showing relationships to ongoing development, related urban systems (i.e. Urban Rail, Lance Armstrong Bikeway), proposed phasing, and high-priority areas
- Consultant team will iteratively review and comment on these graphics, MVVA will synthesize and incorporate consultant feedback and define specific topics and areas which require additional consultant investigation
- Consultant team and MVVA will develop narrative to accompany advanced creek channel graphics in Creek Corridor Framework Plan
- Consultant team will produce technical memos to support proposals contained in Creek Corridor Framework Plan
- MVVA will lead the synthesis and documentation of the work performed by sub-consultants above into a working Framework Plan Document.
- Two drafts of Framework Plan Document will be made available for review among consultant team
- Two drafts of Framework Plan Document will be made available for review among WCC, WPD, and other COA internal stakeholders TBD
- MVVA will incorporate feedback into Final Creek Corridor Framework Plan document

REVIEW EMERGING PUBLIC AND PRIVATE DEVELOPMENTS (June 2014-April 2015)

This task will apply the ongoing analysis design work being performed for the Creek Corridor Framework Plan to emerging public and private development in the Waller Creek District. The design team will provide written and graphic comment on these developments (permitting drawings to be supplied by COA) to assess compatibility with the design vision of the public trail system and creek corridor established during the Framework Planning process. This task will also provide technical support to the Waller Creek Design Review Team.

Because of the highly variable site conditions and opportunities to form working relationships with private developers, the work plan below is based upon MVVA’s work done to date to respond to the 99 Trinity and Waller Park Place developments:

- MVVA reviews site development plans and other graphics for:
 - Compatibility with proposed trail alignments and design
 - Possible opportunities/conflicts with on-site and adjacent bank stabilization strategies
 - Potential for downstream impacts of development proposal
 - Need for additional materials for review
- MVVA assigns topics to team which require additional consultant input, as needed
- WPD/COA provide feedback related to permitting and code-based assessments
- MVVA team provides concept-level recommendations for trail alignments and stabilization strategies, supported by diagrams, brief presentation, excerpts from ongoing Framework Plan, and written narrative. Recommendations are

distributed to Waller Creek Design Review Team (if appropriate to schedule of permitting process) or to developers (via COA/WCC)

- MVVA participates in conference calls or in-person meetings with developers, facilitated by COA and WCC
- Developer incorporates changes into site plans and sections
- MVVA team reviews modified developer site plans and sections, provides written comment supported by diagrams
- MVVA, working with Greenberg Consultants, will simultaneously develop program briefs for future development, providing recommendations for building and urban design program to be compatible with future adjacent creek conditions.

PRELIMINARY ENGINEERING COST ESTIMATE SUPPORT (March-April 2015)

An independent cost estimator will perform an estimate of preliminary engineering costs for the proposed improvements described in the Creek Corridor Framework Plan. This estimate will allow the managing party to set baseline budgets for streambank and trail improvements, but may not include design work to be performed in subsequent Phase Plans. The definition of specific project areas will be determined during the creation of the Framework Plan.

- In addition to the material in the Framework Plan, the MVVA Team will provide reference projects, product information, typical details, and supporting diagrams as needed to provide clarification on proposed work.
- The MVVA Team will review and provide written comment on (2) drafts and (1) final cost estimate.

CREEK CORRIDOR SURVEY (Ongoing)

Given the rapidly evolving nature of property ownership and easement conditions within the creek corridor, it is not efficient to commission a comprehensive, corridor-wide survey at this time. Over the course of the Framework Plan, the team will compile available information about existing and proposed site conditions into a single, 2D plan drawing. As the Framework Plan develops, the team will gain an advanced knowledge of where detailed additional survey information is needed, and will assist the owner in developing a limit of work for this survey.

- MVVA team to compile available property line and existing easement information into a digital plan drawing
- MVVA team to iteratively update known information with input from Real Estate Services, WPD, PDRD, and other COA departments
- As the Framework Plan evolves, the team will have greater certainty with regard to which areas require a physical survey. MVVA, with input from the consultant team, will document recommended scope and LOW for owner-provided physical survey

EXHIBIT E: ORGANIZATION CHART

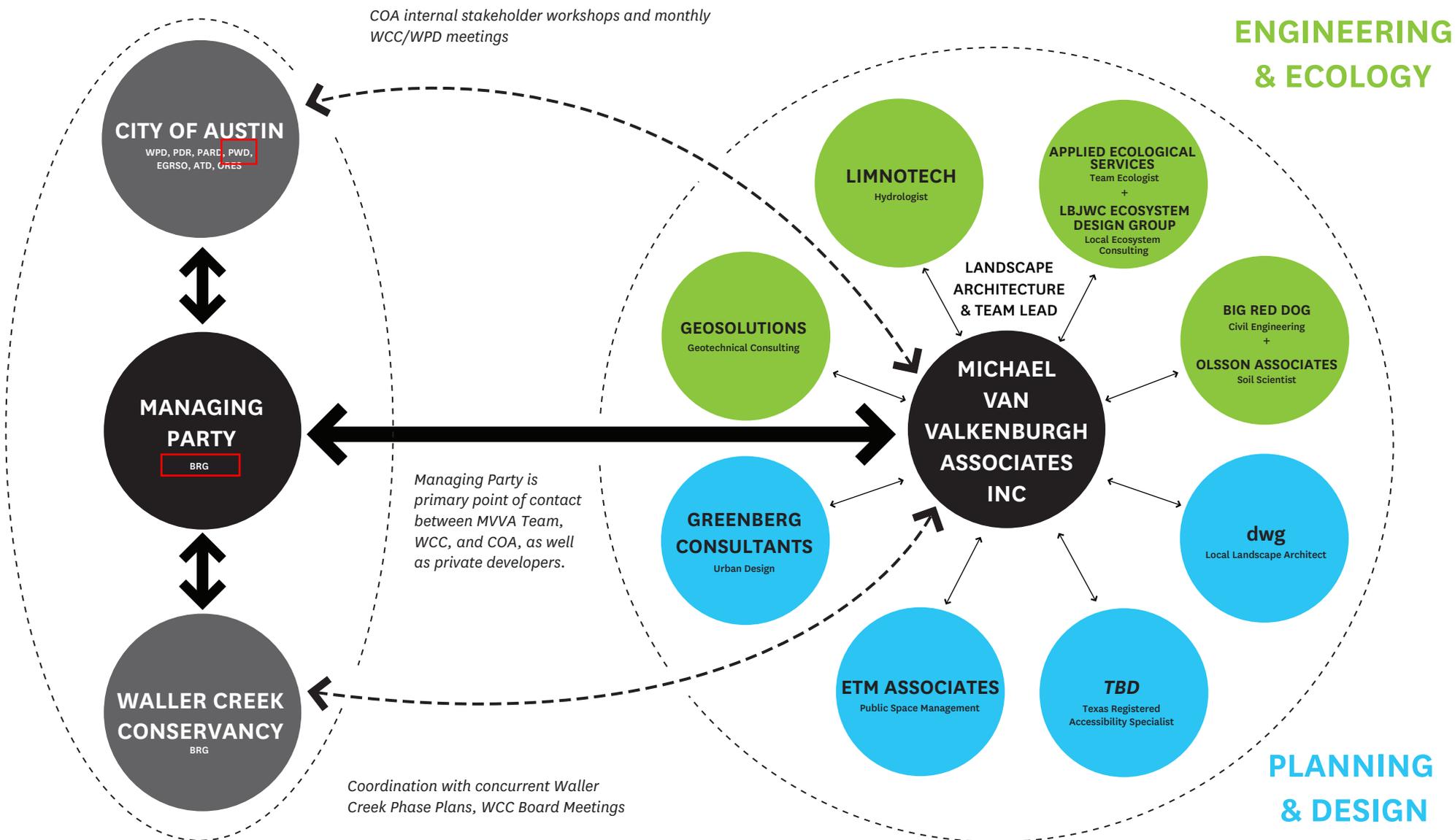


EXHIBIT F: MVVA TEAM FEE & EXPENSE SUMMARY

Creek Corridor Framework Plan

Michael Van Valkenburgh Associates, Inc.

5/9/2014

NOT-TO-EXCEED FEES BY CONSULTANT		
Consultant Name	Discipline	Fees (Not-to-Exceed)
Michael Van Valkenburgh Associates, Inc (MVVA)	Team Lead, Landscape Architect	\$740,580
Limnotech	Hydrologist	\$341,800
dwg	Local Landscape Architect	\$70,000
Big Red Dog	Civil Engineer	\$40,150
Lady Bird Johnson Wildflower Center Ecosystem Design Group	Ecologist/Ecosystem Services	\$62,300
Applied Ecological Services	Team Ecologist	\$70,470
Olsson Associates	Soil Scientist	\$11,760
GeoSolutions	Geotechnical Consultant	\$14,250
ETM	Public Space Management	\$31,640
Greenberg Consultants	Urban Design	\$30,000
<i>(Fee Allowances)</i>		
TBD	<i>Registered Accessibility Specialist</i>	\$5,000
TBD	<i>Sub-consultant contingency; consultant RFP on approval from client</i>	\$10,000
Consultant Fees		\$1,427,950

EXHIBIT F: MVVA TEAM FEE & EXPENSE SUMMARY

Creek Corridor Framework Plan

Michael Van Valkenburgh Associates, Inc.

5/9/2014

ESTIMATED REIMBURSABLE EXPENSES BY CONSULTANT		
Consultant Name	Assumptions*	Expenses
Michael Van Valkenburgh Associates, Inc (MVVA)	\$1300 for 2-day person-trip (assumes maximum 32 person-trips). Also includes allowance for materials for (2) models and estimate of printing expenses (including 10 hard copies of Framework Plan Document).	\$69,900
Limnotech	Assumes \$1300 per trip (maximum 28 person-trips), additional computing and modelling software fees, and printing/reproduction costs.	\$50,700
dwg	Printing, long-distance phone	\$2,000
Big Red Dog	Printing, long-distance phone	\$3,500
Lady Bird Johnson Wildflower Center Ecosystem Design Group	Printing, long-distance phone	\$200
Applied Ecological Services	Assumes \$1350 per trip; 4 person-trips	\$5,400
Olsson Associates	Assumes 2 person-trips, printing, long-distance phone	\$1,327
GeoSolutions	Printing, long distance phone	\$500
ETM	1 person-trip, printing, long-distance phone	\$3,164
Greenberg Consultants	Assumes \$1600 per trip - maximum 5 person-trips; Printing and long-distance phone	\$8,000
TBD Consultants (Reimbursable Expense Allowances)		
TBD	<i>Registered Accessibility Specialist</i>	\$500
TBD	<i>Sub-consultant contingency; consultant RFP on approval from client</i>	\$1,500
Estimated Reimbursable Expenses		\$146,691

*Client will only be billed for expenses as accrued. Every effort will be made to share travel expenses among different phase plans, and expenses will be billed proportionally by level of effort for each trip.

EXHIBIT G: MVVA TEAM FEE SUMMARY BY TASK
Creek Corridor Framework Plan
Michael Van Valkenburgh Associates, Inc.
5/9/2014

TASK 1 - PROJECT MANAGEMENT AND MEETINGS (46 weeks)		
Subconsultant		Fees
MVVA		\$ 145,520
Limnotech		\$ 77,900
dwg		\$ 4,620
Big Red Dog		\$ 2,650
Lady Bird Johnson Wildflower Ecosystem Design		\$ 17,900
AES		\$ 10,800
Olsson		\$ 3,360
Geosolutions		\$ 1,200
ETM		\$ -
Greenberg		\$ -
Consultant Fees		\$ 263,950

EXHIBIT G: MVVA TEAM FEE SUMMARY BY TASK

TASK 2 - PROGRAM VERIFICATION AND ANALYSIS (16 weeks)		
Subconsultant		Fees
MVVA		\$ 157,820
Limnotech		\$ 28,800
dwg		\$ 13,255
Big Red Dog		\$ 9,250
Lady Bird Johnson Wildflower Ecosystem Design		\$ 5,600
AES		\$ 7,560
Olsson		\$ 1,120
Geosolutions		\$ 2,400
ETM		\$ 9,250
Greenberg Consultants		\$ -
Consultant Fees		\$235,055

EXHIBIT G: MVVA TEAM FEE SUMMARY BY TASK

TASK 3 - DISCOVERY - HYDRAULICS AND HYDROLOGY (16 weeks)		
Subconsultant		Fees
MVVA		\$ 6,720
Limnotech		\$ 50,800
dwg		\$ -
Big Red Dog		\$ 4,000
Lady Bird Johnson Wildflower Ecosystem Design		\$ -
AES		\$ 5,355
Olsson		\$ 840
Geosolutions		\$ -
ETM		\$ -
Greenberg Consultants		\$ -
Consultant Fees		\$ 67,715

EXHIBIT G: MVVA TEAM FEE SUMMARY BY TASK

TASK 4 - MODELING HYDRAULICS AND HYDROLOGY (36 weeks)		
Subconsultant		Fees
MVVA		\$ 22,680
Limnotech		\$ 93,100
dwg		\$ -
Big Red Dog		\$ 7,500
Lady Bird Johnson Wildflower Ecosystem Design		\$ 9,200
AES		\$ 23,355
Olsson		\$ 1,680
Geosolutions		\$ 2,700
ETM		\$ 6,360
Greenberg Consultants		\$ -
Consultant Fees		\$166,575

EXHIBIT G: MVVA TEAM FEE SUMMARY BY TASK

TASK 5 - CREEK CORRIDOR FRAMEWORK PLAN (36 weeks)		
Subconsultant		Fees
MVVA		\$ 297,180
Limnotech		\$ 48,100
dwg		\$ 11,805
Big Red Dog		\$ 10,250
Lady Bird Johnson Wildflower Ecosystem Design		\$ 29,600
AES		\$ 23,400
Olsson		\$ 4,200
Geosolutions		\$ 5,550
ETM		\$ 9,250
Greenberg Consultants		\$ -
Consultant Fees		\$ 439,335

EXHIBIT G: MVVA TEAM FEE SUMMARY BY TASK

TASK 6 - Review of Emerging Development (36 weeks)		
Subconsultant		Fees
MVVA		\$ 82,180
Limnotech		\$ 41,200
dwg		\$ 30,640
Big Red Dog		\$ 2,250
Lady Bird Johnson Wildflower Ecosystem Design		\$ -
AES		\$ -
Olsson		\$ 560
Geosolutions		\$ 2,400
ETM		\$ 6,780
Greenberg Consultants		\$ 30,000
Consultant Fees		\$ 196,010

EXHIBIT G: MVVA TEAM FEE SUMMARY BY TASK

TASK 7 - Creek Corridor Survey		
Subconsultant		Fees
MVVA		\$ 5,480
Limnotech		\$ 1,900
dwg		\$ 9,680
Big Red Dog		\$ 4,250
Lady Bird Johnson Wildflower Ecosystem Design		\$ -
AES		\$ -
Olsson		\$ -
Geosolutions		\$ -
ETM		\$ -
Greenberg Consultants		\$ -
Consultant Fees		\$ 21,310

TASK 8 - Preliminary Engineering Cost Estimate Support		
Subconsultant		Fees
MVVA (Fees re-apportioned to sub-consultants as needed)		\$ 23,000
Consultant Fees		\$ 23,000

PROJECT MANAGEMENT PROFESSIONAL SERVICES PROPOSAL

Creek Corridor Framework Phase Plan – EXHIBIT H

PROJECT DESCRIPTION

The Waller Creek Conservancy (WCC) is the Proposing Party for the Creek Corridor Framework Phase Plan for Waller Creek. This Phase Plan will involve the design and engineering team of Michael Van Valkenburgh Associates, Vermeulens Cost Consultants and a professional surveying company to accomplish a scope of work that will examine the health and welfare of the Waller Creek post tunnel completion. The City of Austin (COA) Watershed Protection Department is serving as the Responding Party. The Waller Creek Conservancy, and Benz Resource Group as their Project Manager, is the Managing Party for this Phase Plan.

PROJECT MANAGER DUTIES

Benz Resource Group shall use its efficient and professional business administration, superintendence, skill and judgment to provide the necessary leadership for the Team and representation of WCC and the City of Austin. BRG will provide the following services as needed:

- Attend COA Department Lead Coordination Meetings
- Attend COA Internal Stakeholder Workshops
- Provide updates to the WCC Board
- Provide support during the Program Verification Phase
- Participate in meetings regarding Emerging Public or Private Development
- Coordinate the selection of a surveyor following COA procurement ordinances
- Coordinate the scope of work for the surveyor
- Coordinate the acquisition of easement and property descriptions
- Coordinate, review and report on cost estimating efforts
- Prepare written reports for the Waller Creek LGC
- Provide progress reports to the City of Austin
- Administer the contract

PROFESSIONAL SERVICES FEES

In consideration for the performance of the services listed above the professional services fees will be invoiced on a hourly basis with a not to exceed maximum on \$94,640. All reimbursable expenses such as printing and postage will be invoiced in addition to the fees. BRG staff assigned to the project will primarily be Susan Benz with accounting and management support from BRG Staff. Invoices will be remitted on a monthly basis.

Estimated Reimbursable Expenses: Actual costs will be invoiced including a markup of 10% and submitted for reimbursement. Given the size and various locations of the consulting team, it is anticipated that reimbursable expenses may be experienced as shown on the attached document.

BRG Fees Creek Corridor Framework					
	hrs/mo	months	total	rate	fee
COA Dept Lead Coordination Meetings	4	12	48	\$ 150	\$ 7,200
COA Internal Stakeholder Workshops	8	5	40	\$ 150	\$ 6,000
WCC Board Meetings			16	\$ 150	\$ 2,400
Additional Meeting Allowance			40	\$ 150	\$ 6,000
Program Verification Support	8	4	32	\$ 150	\$ 4,800
Emerging Public/Private Development	6	12	72	\$ 150	\$ 10,800
Coordination of Procurement for Surveyor			48	\$ 150	\$ 7,200
Creek Sections Coordination with Surveyor			24	\$ 150	\$ 3,600
Easement/Property Description Coordination			24	\$ 150	\$ 3,600
Coordination/Review/Reporting: Cost Estimating			36	\$ 150	\$ 5,400
Miscellaneous Coordination w/COA, MVVA, WCC			48	\$ 150	\$ 7,200
Coordinate the preparation of written reports to the LGC			24	\$ 150	\$ 3,600
Progress Reports (Article 20 of JDA)	6	12	72	\$ 150	\$ 10,800
Administrative Invoice Processing: Principal	4	12	48	\$ 150	\$ 7,200
Administrative Invoice Processing: Staff Support	8	13	104	\$ 85	\$ 8,840
			676		\$ 94,640
BRG Estimated Reimbursable Expenses					
Cost of maintaining Project Website on Basecamp		20	20	\$ 100	\$ 2,000
Reproductions					\$ 2,000
Long Distance Telephone					\$ 1,000
Postage / Deliveries					\$ 1,000
					\$ 6,000

Waller Creek Conservancy

Cost Consulting Services

Prepared for:

Susan Benz, AIA
benz@benzresourcegroup.com
512.220.9542

Benz Resource Group
1101 B East 6th St
Austin, TX 78702
512.220.9542
www.benzresourcegroup.com

Prepared by:

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14785 Preston Road, Suite 550
Dallas, TX 75254
972.789.5161
www.vermeulens.com

Date: April 14, 2014

REVISED (2) Proposal #; 140145

In Addition to Proposal #: 120435

Introduction

Benz Resource Group and Vermeulens

- we are looking forward to working collaboratively with Benz Resource Group
- we will work closely with your team to ensure a successful project that runs in a smooth and timely manner between design phases
- Vermeulens is your sustainable estimator with all of our management staff LEED accredited professionals.
- large current project lists are a testament that clients like you depend on us for realistic project budgets from the outset to help minimize the loss of program and scope, and costly re-design that can prevent the project from opening on time
- Vermeulens looks forward to working with a passionate, experienced, innovative team of great designers and an owner with a clear vision and quick decision making skills

Waller Creek Conservancy Project Scope

Project Description

- located in Austin, Texas
- building type is new construction/renovation

Project Budget

- the construction budget is \$27,000,000

Waller Creek Conservancy Cost Consulting Fees

Cost Estimating Fee Assumptions and Requirements

General

- fees are based on escalated budget of \$27,000,000
- our fee will be adjusted for substantial changes in overall scope or budget
- total fee includes meeting time
- invoicing will occur after the kickoff of each milestone by Vermeulens Inc
- drawings and specifications will be provided electronically

Components / Cost Breakouts

- components to be agreed upon
- significantly more components may alter the fees listed below
- components will be estimated together at each design phase

Meetings

- defined as face to face, teleconference, web based conference or video conference
- meeting attended by (1 - Blair) to review the full scope of work and discuss the format of the estimate
- meeting attendance by (2) to review the first draft of the estimate
- meeting attendance by (1) for two half day meeting to review updated estimate
- travel expenses and/or video conference charges are included in reimbursable expenses

Fees for Waller Creek Conservancy

Estimating Milestones	Fee (\$ USD)
Draft Cost Estimate for Review	27,000
Framework Plan Cost Report	23,700
Total Fee	50,700
Estimated reimbursable expenses at cost	1,450
Grand Total	52,150

Signed Fee Agreement

Date: April 14, 2014

**REVISED (2) Proposal #: 140145
In Addition to Proposal #: 120435**

- by signing and returning this page you are accepting the above fees
- invoicing will only be issued for design milestones that are estimated

I hereby accept and approve the fee structure and parameters as outlined in this proposal.

Signature.

Date.



APPLIED ECOLOGICAL SERVICES

| ~~January 26~~[April 9](#), 2014

Ms. Danielle Choi
Michael Van Valkenburgh Associates, Inc.
16 Court Street, 11th Floor
Brooklyn, New York 11241

Subject: Waller Creek (11-0920) – Revised AES Proposal for Ecological and Stormwater Support for Waller Creek Corridor Framework Plan

Dear Danielle:

Over the past several years, Applied Ecological Services, Inc. (AES) has provided ecological and stormwater management support services for the Waller Creek Corridor redevelopment project in Austin, Texas. Per your December 17, 2013 request, your initial and revised scope matrices (most recently dated 1/21/14), [scope modifications regarding “ecological flows,”](#) and subsequent discussions, the following proposal outlines AES’s anticipated scope of work, deliverables, and associated costs for providing ecological and stormwater management support for the Waller Creek Corridor Framework Plan. [Due to significant delays in this phase of the project, we would appreciate an updated schedule once scopes and budgets are approved.](#) ~~We anticipate the project schedule will follow the schedule you provided.~~

SCOPE OF WORK & DELIVERABLES

**Task 1: Project Management and Meetings
AES (1.5, 1.7)**

Objective: On two (2) occasions, Stephen Apfelbaum and Doug Mensing will prepare for and travel to Austin, TX to participate in a CoA Internal Stakeholder workshop and additional meetings. Having both AES representatives present at these important meetings (including the project kick-off) will result in greater efficiencies throughout the duration of the project.

Deliverables: S. Apfelbaum and D. Mensing will each prepare for, and travel to Austin two times to participate in, workshops/meetings (including a site walk). Each trip is anticipated to require one overnight in Austin with meetings occurring during working hours (allowing for evening travel).

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P.O. Box 256, 17921 Smith Rd Brodhead, WI 53520 (608) 897-8641	120 W Main St West Dundee, IL 60118 (847) 844-9385	21938 Mushtown Rd Prior Lake, MN 55372 (952) 447-1919	1271 N. 222nd Rd Baldwin City, KS (785) 594-2245	1100 E Hector St, Suite 398 Conshohocken, PA 19428 (610) 238-9088	1899 SR414 Waterloo, NY 13165 (608) 214-2361

Task 2: Program Verification and Analysis **AES (2.1, 2.3, 2.4, 2.5)**

Objective: AES will become familiar with the WPD Functional Assessment of Streambank Health for criteria regarding stream health, channel stability, and stream ecology. AES will then participate in a kick-off site walk with WPD staff (the same site walk as described under Task 1 above) to discuss existing conditions and potential opportunities. AES will provide technical review of creek corridor documentation, including advice on existing and proposed trails, significant challenges to streambank stability, conflicts/opportunities in Tunnel-related modifications, design cross-sections, and the trail alignment strategy.

Deliverables: AES's recommendations and review findings will be conveyed through plan mark-ups and/or supporting text and edits (depending on format provided and most efficient method).

Task 3: Discovery: Hydraulics and Hydrology **AES (3.3, 3.4, 3.5)**

Objective: In support of lead firm LimnoTech (with whom AES has collaborated extensively), AES will provide technical framing of ecological-hydraulic issues, evaluate the potential to develop an ecological flow regime ~~contribute to the preliminary development of ecological flow regime~~ to support ecosystem services (by reach), and review services pertaining to initial assessment of known proposed development impacts (dam at Waterloo only) on creek hydraulics, sediment loads, and water quality. AES will also provide technical review of the iteratively updated extreme flow model.

Deliverables: AES's recommendations and review findings will be conveyed through plan mark-ups and/or supporting text and edits (depending on format provided and most efficient method).

Task 4: Modeling: Hydraulics and Hydrology **AES (4.1, 4.2, 4.3, 4.4, 4.6, 4.7)**

Objective: In support of lead firm LimnoTech, AES will: provide technical review services and recommendations regarding HEC-RAS modeling (i.e., implications for proposed improvements); contribute to risk analysis of public trail system development; provide recommendations regarding alternatives and mitigating techniques where bank stability conflicts are identified; review impacts of proposed modifications on bank stability, channel scour, water quality, sediment dynamics, and creek corridor hydraulics; assist with identification of opportunities for upland and in-channel ecosystem services; and provide review of document produced by Waller Creek Tunnel "JV Team" describing possible stormwater retrofit opportunities.

Deliverables: AES will work closely with LimnoTech on providing deliverables that best serve the project goals. Deliverables will include, at a minimum, recommendations and review findings conveyed through plan mark-ups and/or supporting text and edits (depending on format provided and most efficient method). In addition, a technical memorandum may also be prepared if deemed appropriate.

Task 5: Creek Corridor Framework Plan
AES (5.5, 5.6, 5.10, 5.11)

Objective: In support of Framework Plan development, AES will assist with assigning typical sections to streambank landscape types, stream health restoration, and stabilization, and by assigning typologies of top of bank run-off management opportunities. AES will also provide a review of two (2) versions of the Framework Plan prior to its finalization.

Deliverables: AES will contribute to the above items by providing a technical memorandum, plan mark-ups, supporting text, and/or recommended edits (depending on format provided and most efficient method). Two (2) rounds of Framework Plan edits (tracked in Word or hard-copy mark-ups) will be provided by AES prior to Plan finalization.

Task 6: Review Emerging Public and Private Development
AES (no involvement)

Task 7: Creek Corridor Survey
AES (no involvement)

BUDGET

Task	Estimated Fees	Estimated Expenses	Estimated Task Total
Task 1: Project Management and Meetings AES (1.5, 1.7)	\$ 10,800	\$ 5,400	\$ 16,200
Task 2: Program Verification and Analysis AES (2.1, 2.3, 2.4, 2.5)	\$ 7,560	\$ -	\$ 7,560
Task 3: Discovery: Hydraulics and Hydrology AES (3.3, 3.4, 3.5)	\$ 7,830 <u>5,355</u>	\$ -	\$ 7,830 <u>5,355</u>
Task 4: Modeling: Hydraulics and Hydrology AES (4.1, 4.2, 4.3, 4.4, 4.6, 4.7)	\$ 23,355	\$ -	\$ 23,355
Task 5: Creek Corridor Framework Plan AES (5.5, 5.6, 5.10, 5.11)	\$ 23,400	\$ -	\$ 23,400
Task 6: Development Criteria AES (no involvement)	\$ -	\$ -	\$ -
Task 7: Creek Corridor Survey AES (no involvement)	\$ -	\$ -	\$ -
TOTALS:	\$72,945	\$5,400	<u>\$75,870</u>\$78,345

Note: The cost estimates provided above are opinions of probable cost, based on AES's current understanding of our role, responsibilities, and project deliverables. Due to project unknowns, our effort and associated costs may warrant adjustment during execution of the project, including shifting of effort/funds from one task to another. AES intends to work within the budgets presented above, but will communicate with MVVA if adjustments appear to be necessary.

CLOSING

AES appreciates the opportunity to present you with this proposal. Please contact us if you have any questions, comments, or additional needs. We look forward to continuing to work with you and MVVA on this exciting project.

Sincerely,
Applied Ecological Services, Inc.

Stephen Apfelbaum, MS
Principal Ecologist, Owner

Douglas Mensing, MS
Senior Ecologist



January 10, 2014

Revised January 28, 2014; May 9, 2014

Ms. Danielle Choi

Associate

Michael Van Valkenburgh Associates, Inc.

16 Court Street, 11th Floor

Brooklyn, NY 11241

Phone: 718.243.2044

dchoi@mrvainc.com

RE: **Waller Creek Corridor – Framework Plan**

Proposal for Professional Engineering Services

Waller Creek between Ladybird Lake and 15th Street

Austin, Travis County, Texas

Dear Ms. Choi:

BIG RED DOG (BRD) is pleased to submit this proposal for professional engineering services on the proposed Waller Creek Corridor project located between Ladybird Lake and 15th Street, along Waller Creek, in the Full Purpose Limits of the City of Austin, in Travis County, Texas. This letter, once authorized by both parties, will serve as our contractual **agreement**.

It is our understanding that the Waller Creek Corridor Framework Plan will be a comprehensive investigation of the post Waller Creek tunnel completion conditions followed by the preparation of the plan that will guide the redevelopment of Waller Creek. The Framework plan will document how those post-tunnel conditions align with the proposed trail and park improvements and develop the trail and park improvements that will be applied to further improve the conditions of Waller Creek. As a member of the design team for this project, BIG RED DOG will supply civil engineering support services to the primary design team members and be a local point of contact between City of Austin representatives and the local property owners and developers.

The Waller Creek Corridor Framework plan is being prepared to provide an overall narrative and graphic on the design and engineering of the layout for the improved Creek redevelopment. BIG RED DOG is excited to be providing support during the development of this plan and looks forward to working with the full design team to make the creek a great amenity for the City of



Austin. We are confident that our experience working in the City of Austin and with members of the design team will be a valuable contribution to the project.

We've done this before.

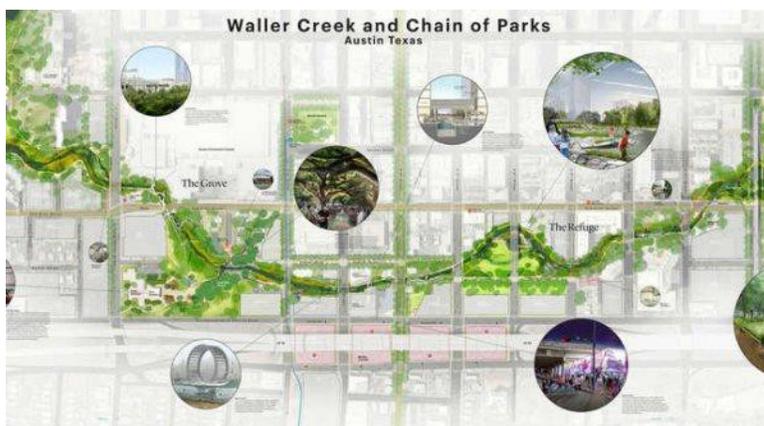
Here's a sample of our recent experience on similar projects:



Developed by Simmons Vedder Partners, the master plan for the 70-acre **Crossings at Lakeline**, a transit-oriented development, includes multi-family, and professional office land uses centered on the Lakeline MetroRail stop. BIG RED DOG has been responsible for the civil engineering of the overall subdivision, including assisting in obtaining zoning amendments and

design of the public roadway, drainage, and utility infrastructure. This project features a 10-acre regional wet pond designed to be an amenity for residents and tenants of the project.

BIG RED DOG is providing civil engineering services for the ambitious Waller Creek project which will transform a dilapidated and lifeless creek into a vibrant urban waterway complemented by dynamic parks, bridges, and open and interactive spaces that engage the public. Once finished, it will be a world-class destination. The Michael Van Valkenburgh Associates design features a chain of parks linking the outlet of the tunnel to the inlet. Starting at Lady Bird Lake with the Lattice, this area will feature six lightweight and easily deployable trail bridges that span the mouth of Waller Creek and form the southernmost link of the Chain.





Scope of services.

Based on our understanding of the current project status, combined with our discussions with your office, we propose to provide the following **scope of services**:

1. **Meeting Attendance.** The Waller Creek Corridor Framework Plan development will require meeting with stakeholders, City of Austin staff and the design team. Each meeting is assumed to be two (2) hours in length and held in Austin. For this task, BIG RED DOG has budgeted to attend the following meetings:
 - a. Attend two (2) City of Austin Stakeholder workshops to discuss project inclusions and determine the desired outcomes of the Stakeholders involved in the project. One of these meetings includes the Kick-Off site walk that we have scheduled for a full workday (8 hours).
 - b. Attend two (2) additional meetings as requested by the design team and approved by MVVA. These meetings may be for the purpose of meeting with private developers, doing additional research, coordination with the City of Austin, etc.
2. **Program Verification and Analysis.** The development of the Waller Creek Corridor Framework Plan will require the design team will work together to compile the existing conditions of Waller Creek and the adjacent properties, and for the design team to work with Stakeholders to determine desired outcomes of the project. During this task, BIG RED DOG will perform the following tasks:
 - a. Work with the design team to identify tracts or projects that are currently being redeveloped or that would be critical to the design of the Waller Creek Corridor and assist with procurement of the known private development plan for these projects.
 - b. Assist with recommendations for possible property/ easement acquisition or alteration opportunities, specifically for utility relocation options and drainage connection points around Waller Creek.
 - c. Review and comment on the plan for the stream restoration and trail realignment along Waller Creek.
 - d. Identify potential utility conflicts based on existing survey information, known public and private upgrade projects, and field verification.
3. **Discovery: Hydraulics and Hydrology.** The hydraulics and hydrology of Waller Creek will be changed due to the eminent completion and opening of the Waller Creek Tunnel. Limnotech will



be updating and verifying the engineering models for Waller Creek and the design team will be providing support to them during this task. During this portion of the project, BIG RED DOG will:

- a. Perform a review and verification of the storm water input locations along the stream.
 - b. Perform a review the storm water drainage basins included in the model, based on site visits or other means necessary to determine these drainage areas.
 - c. Assist with determining the drainage basin areas that discharge into Waller Creek due to lack of clarity in the previously collected information, as necessary.
4. **Modeling: Hydraulics and Hydrology.** After the investigation effort for the hydraulic and hydrologic model is complete, Limnotech will be updating and analyzing the model in order to determine the effects on the proposed Waller Creek Corridor redevelopment plan. During this portion of the project, BIG RED DOG will:
- a. Work with the design team to find solutions for mitigating techniques for the areas of the stream bank that are found to have stabilization issues.
 - b. Assist the design team with the identification and evaluation of possible storm water outfall modifications that would decrease the erosion and scouring caused by the drainage input.
 - c. Assist the design team with identifying opportunities to improve water quality in the upland drainage basins in order to reduce the runoff and sediment that enters into Waller Creek.
5. **Creek Corridor Framework Plan.** The Waller Creek Corridor Framework Plan will be developed based on the information collected during the previous tasks and will result in a written and graphic document that describes and models the Creek cross sections throughout the extents of the project. To assist the design team in the completion of this task, BIG RED DOG will:
- a. Review the proposed trail alignments on public and private property and document possible impacts of the proposed route.
 - b. Assist in the investigation and documentation of the existing retaining and sub-grade structures that are located on sites adjacent to Waller Creek.
 - c. Assist the design team with determining options for top of bank run-off management opportunities.



- d. Assist design team with determining options to realign storm water outfalls with public access points into Waller Creek.
 - e. Review and comment on the draft version of the Waller Creek Corridor Framework plan.
 - f. Review and comment on the final version of the Waller Creek Corridor Framework plan.
6. **Development Criteria.** This task will apply the knowledge gained during the investigation for and preparation of the Waller Creek Corridor Framework Plan to the proposed public and private developments along Waller Creek. During this task, BIG RED DOG will:
- a. Review and comment on the concept level recommendations for trail realignments and stabilization strategies proposed by MVVA.
 - b. Review and comment on the program briefs prepared by Urban Strategies for the future and emerging development recommendations for sites adjacent to Waller Creek in order to make them compatible with the proposed improvements included in the Waller Creek Corridor plan.
7. **Creek Corridor Survey.** Due to the large area, multiple property owners, and rapidly changing engineering conditions of Waller Creek, a comprehensive survey will not be obtained for this project. Rather, a strategic gathering or confirmation of necessary information will be performed on an as needed basis. During this task, BIG RED DOG will:
- a. Assist with the compilation of the available property line and easement information for the properties adjacent to Waller Creek.
 - b. Assist with coordination of City of Austin's Real Estate Services, Watershed Protection Department, and Planning and Development Review Department in gathering known information that will aid in project development.
 - c. Assist with the procurement of a professional survey based on needs determined during the development of the Waller Creek Corridor Framework plan.
8. **Reimbursable Expenses.** Reproduction and other associated reimbursable expenses will be provided for this project on a time and materials basis and will be invoiced at our cost plus 10%, up to an agreed upon maximum budget. Such expenses include drawing reproductions, photographic reproductions, printing, transportation expenses including mileage reimbursement, and other expenses incurred as a direct cost of providing services for the project.



Fee.

We propose to provide the specific services described above on an “Hourly, not to exceed” basis as outlined below.

Item	Fee Basis	Fee	Hours Assumed
1 Meeting Attendance	Hourly, NTE	\$2,650	12
2 Program Verification and Analysis	Hourly, NTE	\$9,250	50
3 Discovery: Hydraulics and Hydrology	Hourly, NTE	\$4,000	24
4 Modeling: Hydraulics and Hydrology	Hourly, NTE	\$7,500	42
5 Creek Corridor Framework Plan	Hourly, NTE	\$10,250	56
6 Development Criteria	Hourly, NTE	\$2,250	10
7 Creek Corridor Survey	Hourly, NTE	\$4,250	24
	TOTAL	\$40,150	
8 Reimbursable Expenses	Cost + 10%	\$3,500	



Project Assumptions.

In completing this proposal, BIG RED DOG has made the following assumptions:

1. This project proposal is for investigation, preliminary engineering, and support services only. No site development permits or submittals are included in this contract. If required, they will be proposed as an additional service to this contract.
2. We have assumed that this project will not encounter opposition from City, County, or State review agencies, neighborhood groups, environmental groups, etc which would require a public hearing or meetings with neighborhood groups or associations.
3. Project review fees, inspection fees, fiscal surety, and other associated project-related fees are not included in this scope and remain the responsibility of the project owner.
4. Unless specifically listed above, this proposal excludes fees for services other than coordination of surveying, irrigation design, geotechnical services (including roadway pavement design), structural, electrical, traffic impact, traffic signal, geologic, environmental, etc.
5. The following services are excluded from BRD's proposal unless specifically included in this proposal:
 - a. Land surveying services.
 - b. Landscape architecture.
 - c. Irrigation design services.
 - d. Structural design of retaining walls greater than 3-feet in height, stormwater splitter boxes or detention ponds, bridges, culverts and similar structures.
 - e. Geotechnical engineering, pavement section designs, materials testing, soil borings or analysis.
 - f. Environmental site assessments, wetlands, endangered species and KARST feature investigations.
 - g. Preparation of traffic impact analysis reports, and traffic safety, signal, sign or signalization plans.



BIG RED DOG Engineering | Consulting

- h. Design franchise utility services for electricity, gas, cable, telephone
6. There are no hourly scope items in this proposal. However, the hourly rates for this project, if ever applicable, shall be based on our Hourly Rate Schedule, as follows:
- a. President, \$200 per hour
 - b. Vice President, \$185 per hour
 - c. Project Manager, \$165 per hour
 - d. Project Engineer, \$125 per hour
 - e. Principal Designer, \$125 per hour

Terms and Conditions.

The Terms and Conditions of this Agreement are set forth in Attachment 1 attached hereto and made a part hereof. By execution of this Agreement, the Client acknowledges that it has been informed, has read, and fully understands and consents to the Terms and Conditions.

If the terms of this Agreement are acceptable to you, please the attached PSA and return an executed copy to our office. BIG RED DOG will return a fully executed copy of the agreement and appreciates the opportunity to assist you with this project.

Sincerely,

BIG RED DOG Engineering | Consulting

Texas Engineering Firm No. F-11201

Bradley J. Lingvai, P.E.,
President, Austin

Attachment 1 – Professional Services Agreement

CLIENT: _____
PROJECT: _____
BRD PROJECT #: _____

**BIG RED DOG ENGINEERING AND
CONSULTING**

**ATTACHMENT 1 - Exhibit K
PROFESSIONAL SERVICE AGREEMENT
STANDARD TERMS & CONDITIONS**

AGREEMENT

BIG RED DOG Engineering and Consulting (BRD) is being engaged by CLIENT to render professional engineering or consulting services in connection with CLIENT's project as described in the subject project **PROPOSAL or Client Letter**. This Agreement consists of two parts: (1) the Proposal or Client Letter; and (2) these Standard Terms & Conditions. Nothing in this Agreement shall create a contractual relationship with, or any cause of action in favor of, any individual or entity not a party to this Agreement. This Agreement represents the entire and integrated agreement and supersedes any prior negotiations, representations or agreements.

This contract is between the CLIENT and the following legal entity:

- _____ BIG RED DOG – Austin, LLC
- _____ BIG RED DOG – San Antonio, LLC
- _____ BIG RED DOG – Houston, LLC

This Agreement shall become effective upon its execution by CLIENT or when CLIENT provides written authorization to BRD to begin its work. If the Agreement is not executed by CLIENT within thirty (30) days of the date tendered by BRD, it shall become invalid unless: (1) BRD extends the time in writing; or (2) at the sole option of BRD, BRD accepts CLIENT's oral authorization to proceed with the services, in which event the terms of the oral authorization shall be presumed to include all the terms of this Agreement. BRD's performance of the services under the oral authorization shall be in reliance on the inclusion of all the terms of this Agreement in the oral authorization.

ENGINEER AND CONSULTANT SERVICES

1. BRD will perform its services as expeditiously as is consistent with the standard of care and diligence normally practiced by recognized professional engineering firms in performing services of a similar nature, in the same locality of the project site, under similar circumstances. BRD makes no (and indeed disclaims all) warranties or guarantees, expressed or implied, with regard as to the quality of the services performed, or work product provided under this Agreement.
2. The services provided by BRD are purely professional services, the essence of which is the providing of advice, judgment, opinion, or similar professional skill. BRD shall perform the services within a timely manner consistent with sound professional practices.
3. Many permitting agencies provide specified review time lines that are often not met by the review agencies. As a result, BRD makes no warranties or representations as to time required or the ability to obtain permits or approvals. BRD can assist CLIENT in expediting the review process as an additional service billed on an hourly basis. Occasionally new or revised policies or procedures are established by review agencies. Any work required to resolve contested issues resulting from new regulations, new interpretations of existing regulations or changes in in-house agency policy and procedures shall be considered additional services billed on an hourly basis. CLIENT requested site plan or design changes after the submittal of civil plans for permits shall also be additional services to be billed on an hourly basis. CLIENT agrees that, while BRD agrees to employ reasonable efforts to accomplish its work in a timely manner, BRD shall in no way be liable for damages of any kind for delays, or for any failure to meet milestones established under this Agreement, the failure to obtain a permit from any governmental entity, or the failure to obtain a permit in any specified amount of time.
4. Evaluations of CLIENT's budget, or estimates of project costs prepared by BRD, if any, represent BRD's judgment as a professional engineer. It is recognized that BRD has no control over the cost of labor or materials, contractors' methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, BRD cannot and does not warrant or represent that bids or negotiated priced will not vary from CLIENT's budget or BRD's cost estimates, and CLIENT expressly agrees that BRD shall have no liability for any failure of bids or actual construction costs to comply with CLIENT's budget or BRD's cost estimates.

CLIENT RESPONSIBILITY:

1. CLIENT represents and warrants that it is financially solvent, able to pay its debts as they become due, and possesses sufficient working capital to perform its obligations under this Agreement.
2. CLIENT shall provide BRD the following:
 - a) CLIENT's criteria and requirements for the project;
 - b) Right-of-entry and access for BRD to enter upon the project site whether upon Public or private property;
 - c) All information available to or known by CLIENT which may be required by BRD in performing our services; and
 - d) Timely examination and response to Engineer's submittals; and
 - e) Payment of project-related submittal and review fees over \$200.00.
3. BRD shall be entitled to rely upon the accuracy of the information and documentation provided by CLIENT and CLIENT's other consultants.

CHANGES IN SCOPE OF SERVICES:

1. If CLIENT makes changes to the scope of services shown in the Client Letter attached hereto, or if unknown or unforeseen conditions are encountered in the field, which causes an increase in the cost for performance of the services hereunder, then a mutually agreed upon adjustment in fee should be made and reflected in an "Amendment," to be executed and/or authorized by CLIENT.
2. In the event there are modifications and/or additions to Regulatory Requirements or agency review processes related to the services performed under this Agreement after the date of its execution which cause an increase in the cost required of BRD for performance of the services hereunder, then a mutually agreed upon adjustment in fee shall be made and reflected in an "Amendment," to be executed and/or authorized by CLIENT.
3. In the event work is ordered verbally by CLIENT or his representative or agent and/or if immediate services are required to respond to construction issues on behalf of CLIENT or the project, additions will be considered authorized and will be billed on a time basis and CLIENT will be responsible for payment.

GENERAL CONDITIONS

1. **DURATION**
 - a. This professional service agreement shall remain in effect through the time it takes to execute the services included in the attached PROPOSAL and any additional services authorized by the client for the subject project.
2. **OWNERSHIP & REUSE OF DOCUMENTS**
 - a. All documents including drawings, estimates, specifications, field notes and data prepared by BRD for the Project are Instruments of Service for use solely with respect to this Project, and BRD shall retain all common law, statutory and other reserved rights, including the copyright. By execution of this Agreement, and contingent upon payment in full for all services rendered, grants to CLIENT a limited, nonexclusive, and revocable license to use the Instruments of Service for purposes of constructing, using, and maintaining the Project. Any reuse without specific written consent and verification or adaptation by BRD will be at CLIENT's sole risk and without liability or legal exposure to BRD. Any such consent and verification or adaptation—granted at BRD's sole discretion—shall entitle BRD to further compensation at rates to be agreed upon by CLIENT and BRD. **In the event of non-payment of more than 30 days, the license granted by this section shall be automatically revoked.**
 - b. If documents are provided to Client, Client's contractor, or Client's other consultants by BRD in electronic media, such as CAD files or other native format, CLIENT agrees that this is solely as a convenience, and may not be relied on in the same manner as the signed, sealed documents; nor are such electronic files represented to be accurate and faithful representations of the signed, sealed documents. BRD makes no representations or warranties regarding the accuracy, completeness, or readability of information contained in electronic media files.

3. CERTIFICATIONS, GUARANTEES AND WARRANTIES

- a. BRD shall not be required to execute any document that would result in certifying, guaranteeing or warranting the existence or non-existence of conditions that BRD cannot ascertain or has not been engaged to ascertain.
b. In the event a certification is provided it is understood that any "certification" is to be an expression of professional opinion by a Registered Engineer in the State of Texas and is based on the Engineer's best knowledge, information, and belief, and that it constitutes neither a guarantee nor a warranty.

4. CLAIMS

- a. Risk Allocation. BRD will be responsible only for its own work, and not for defects in the work designed or built by others, including without limitation CLIENT's contractor(s) or other consultants. BRD shall not be responsible for consequential damages to either CLIENT or any other member of the construction team, including without limitation damages for construction inefficiencies or for delays in construction.
b. Claims for Consequential Damages. CLIENT and BRD mutually waive claims for consequential damages for claims, disputes, or other matters in question arising out of or relating to this Agreement, including without limitation the following categories of damages: lost profits; loss of rental income; rental expenses; interest expenses; and loss of financing. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement.
c. Property Insurance. CLIENT agrees to procure, or cause to be procured, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the construction costs, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained until final completion of the Project, or until no person or entity other than CLIENT has an insurable interest in the property, whichever is later. This shall name BRD as an additional insured. CLIENT further agrees to waive all rights against BRD for damages that are, or could have been, covered by property insurance and such waiver of subrogation shall be effective notwithstanding any duty of indemnity, contractual or otherwise.
d. LIMITATION OF LIABILITY:

STANDARD LIMITATION OF LIABILITY CLAUSE (ASSUMED COVERAGE; MINIMUM REQUIREMENTS FOR BRD PARTICIPATION ON THE PROJECT TEAM):

In recognition of the relative risks, rewards and benefits of the Project to both CLIENT and BRD, the risks have been allocated such that CLIENT agrees that, to the fullest extent permitted by law, BRD's total liability to CLIENT for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this Agreement from any cause or causes shall not exceed the amount of compensation received by BRD for services performed under this Agreement. Such causes include, but are not limited to, BRD's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.

OPTION FOR WAIVER OF LIMITATION OF LIABILITY (IF DESIRED; AS INDICATED BY INITIALS BELOW):

In the event that the CLIENT is unwilling or unable to limit liability for any and all injuries, claims, losses, expenses, damages, or claim expenses arising out of this Agreement to a maximum of the amount of compensation received by BRD for services performed under this Agreement in accordance with the provisions set forth in the paragraph above, then it is agreed that CLIENT will pay BRD a fee to be called, "Waiver of Limitation of Liability Charge." The fee shall allow for payment of added insurance to cover costs of increased liabilities and be established as four percent (4%) of civil engineering design fees for projects with such fees being less than \$50,000.00, as three percent (3%) for projects with such fees being between \$50,000.01 and \$99,999.99, and as two percent (2%) if such project fees exceed

\$100,000.00. This fee will be based on lifetime project civil engineering fees and will be adjusted for additional services throughout project (NOTE: Previously paid "Waiver of Limitation of Liability Charge" fees will be credited to the adjusted payments for additional scope items).

Option for Waiver of Limitation of Liability

(Initial here if desired) _____ (Client)
_____ (BRD)
Civil Design Fee \$ _____

5. ASSIGNMENT

CLIENT may not delegate, assign, sublet or transfer its duties or interest in this Agreement without the written consent of BRD. BRD may delegate, assign, sublet or transfer its duties hereunder without the written consent of CLIENT, but BRD shall be made responsible for the completion of its duties. BRD may not delegate, assign or transfer its interest in this Agreement without the written consent of CLIENT.

6. TERMINATION

This Agreement may be terminated by either party on receipt of written notice or by mutual agreement. If this Agreement is terminated by either party, BRD shall be paid in full for all services performed through the termination date, and the CLIENT shall then be provided with a statement of all services provided prior to termination.

7. PAYMENT

- a. CLIENT will pay BRD in accordance with the current BRD Proposal and the Professional Service Agreement attached hereto.
b. Invoices will be submitted in our standard format on a monthly basis or at the completion of work.
c. Payments for services rendered are due and payable upon receipt of our invoice. Thereafter BRD reserves the right to include an amount up to the maximum allowed by law for interest charges. If for any reason we are forced to turn your account over for collection, to an attorney or collection agency, or if collected through legal proceedings, then you will be obligated to pay any and all costs of collection, including agency fees, attorney fees, and court costs.
d. If invoices are not paid within 30 days of receipt, BRD may terminate performance of services without further liability to CLIENT, whatsoever.
e. Preparation of customized invoice formats will be charged on a time basis in accordance with BRD's current fees.

8. DISPUTE RESOLUTION

- a. Mediation. Any claim, dispute or other matter in question arising out of or related to this Agreement and/or the services provided by BRD shall be subject to mediation
b. Arbitration. If mediation is unsuccessful, the parties agree that all claims, disputes and other matters in question between the parties shall be decided by arbitration which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect. The demand for arbitration shall be filed in writing with the other party to the Agreement and with the American Arbitration Association. The locale for any arbitration arising out of the services provided by BRD under this Agreement shall be in Austin, Travis County, Texas.
c. Joinder. BRD will not be required to participate in any mediation or arbitration proceeding with any parties other than CLIENT, without BRD's express written consent.
d. Statute of Limitations. Any applicable statute of limitations shall commence to run and any cause of action shall be deemed to have accrued on the date the drawings are sealed, but in any event not later than the date of substantial completion of the project on which BRD's services are provided.

SIGNED:

BRD Representative _____
BIG RED DOG Engineering and Consulting

Client Representative _____
Company Name _____

March 20, 2014 (Revision 3)

Ms. Danielle Choi
 Michael Van Valkenburgh Associates, Inc.
 16 Court Street
 11th Floor
 New York, New York 11241

RE: Waller Creek – Creek Corridor Framework Plan
 Proposal for Landscape Architecture Services
 dwg. project no. 13_094

Project Summary

The project seeks to create a creek corridor plan that will create the guiding framework for stream bank and channel restoration, public and private development, and trail alignments within the Waller Creek Project area.

Proposal Tasks

Based on the revised Scope Matrix provided by MVVA on January 21, 2014 we have assembled the following Scope.

Task 1 – Project Management and Meetings

1. **Task 1.5 – COA Internal Stakeholder Workshops** – Two Stakeholder meetings, assume 4hr ea, 2 staff = \$2,080
2. **Task 1.6 – WCC Board Meetings** – Attend one Board Meeting, assume 3hr ea, 2 staff = \$780
3. **Task 1.7 – Additional Meeting Allowance** – Attend four meetings TBD, assume 4hr ea, 1 staff = \$1,760

Task 2 – Program Verification and Analysis

1. **Task 2.1 – Kick-off site walk [Team Member]** – Assume 6h , 2 staff = \$1,560
2. **Task 2.2 – Plan Documentation (Upland) [Team Member]** – Local support and field work related to existing vegetation and Heritage Tree assessments. Ground truthing existing conditions for verification, supplemental photo documentation as needed. Allow 15 hours of work and two coordination meetings, 1 staff = \$2,200
3. **Task 2.3 – Plan Documentation (Creek Corridor) [Review Only]** – Local support and field work related to existing vegetation and Heritage Tree assessments. Ground truthing existing conditions for verification, supplemental photo documentation as needed. Allow 15 hours of work and two coordination meetings, 1 staff = \$2,200
4. **Task 2.4 – Establish and verify sections [Review Only]** – Assume 2 online meetings with MVVA and 12 hours of review and diagram and response, 1 staff = \$1,735
5. **Task 2.5 – Develop Trail Alignment [Review Only]** – Assume 2 online meetings with MVVA and 9 hours of review and diagram and response, 1 staff = \$1,200
6. **Task 2.6 – Identify Conflicts [Team Member]** – Assume 2 online meeting and 16 house of review and diagram response, 2 staff = \$4,360

Task 5 – Creek Corridor Framework Plan

1. **Task 5.7 – Assess and document trail alignment for adherence to applicable accessibility codes and standards. [Review Only]** – Assume 3 reviews at 8.5 hours each review, 2 staff = \$3,315
2. **Task 5.9 – Draft (2) Framework Plan Document [Review Only]** – Assume 2 reviews at 8.5 hours each review, 1 staff = \$1,870
3. **Task 5.10 – Final Framework Plan Document [Review Only]** – Assume 2 reviews at 8.5 hours each review, 2 staff = \$2,220
4. **Task 5.12 – Heritage Tree Impact Assessment [Team Member]**– Assume 40 hours, 1 staff = \$4,400

Task 6 – Development Criteria

1. **Task 6.1 – Review Drawing from developers (Waller District Guidelines) [Team Member]** – Assume 4 project reviews, 6 hr per review, 2 staff = \$6,240
2. **Task 6.2 – Assess development plans [Team Member]** – Assume 4 project reviews, 6 hr per review, 2 staff = \$6,240
3. **Task 6.3 – Review COA assessment of potential impacts [Review Only]** – Assume 4 project reviews, 4 hr per review, 1 staff = \$1,760
4. **Task 6.4 – Assemble information from COA/WCC to align goals for interaction with specific development [Review Only]** – Assume 4 project reviews, 3 hr per review, Assume 20 hours related work, 2 staff = \$5,200
5. **Task 6.5 – Provide concept-level recommendations, for trail alignments and stabilization strategies [Review Only]** – Assume 4 project reviews, 4 hr per review, 2 staff = \$4,160

- 6. **Task 6.8 – Record relevant alternative development scenarios into Creek Corridor Framework Plan [Review Only]** – Assume 32 hours, 1 staff = \$3,520
- 7. **Task 6.9 – Develop program briefs for future and emerging development compatibility [Review Only]** – Assume 32 hours, 1 staff = \$3,520

Task 7 – Creek Corridor Survey

- 1. **Task 7.1 – Compile available property line and existing easement information [Review Only]** – Assume 36 hours, 1 staff = \$3,960
- 2. **Task 7.2 – Coordinate known information with Real Estate Services, WPD PDRD [Review Only]** – Assume 36 hours, 1 staff = \$3,960
- 3. **Task 7.4– Document recommended scope and LOW for survey [Review Only]**– Assume 16 hours, 1 staff = \$1,760

Schedule - dwg. assumes the following durations

Task 1	Project Management and Meetings	46 Weeks
Task 2	Program Verification and Analysis	16 Weeks
Task 5	Creek Corridor Framework Plan	36 Weeks
Task 6	Development Criteria	36 Weeks
Task 7	Creek Corridor Survey	17 Weeks

Compensation

The fee for this Scope of Services will be billed monthly, based on hours completed for each phase as follows:

Phase	Item	Fee Basis Fee	
Task 1	Project Management and Meetings	Hourly NTE	\$4,620
Task 2	Program Verification and Analysis	Hourly NTE	\$13,255
Task 5	Creek Corridor Framework Plan	Hourly NTE	\$11,805
Task 6	Development Criteria	Hourly NTE	\$30,640
Task 7	Creek Corridor Survey	Hourly NTE	\$9,680
TOTAL			\$70,000

Sub-Consultant Fees:

This proposal does not include fees for any sub-consultants

In the event work beyond our outlined scope of services is required by the client, dwg. will provide a written proposal for additional services that will be billed on an hourly basis. dwg. shall not proceed without written approval from the client.

Reimbursables

In addition to the professional fees outlined above, the Client shall pay reasonable out of pocket expenses paid by dwg. in the interest of the project. **Reimbursable expenses are estimated to be \$2,000 for this project.**

ETM Scope and Deliverables

Waller Creek Corridor Framework Plan

Task 2: Program Verification and Analysis – Meeting #1

ETM to attend kick off meeting

ETM to provide technical memo to be included in field notes documenting:

- any current maintenance efforts
- current maintenance issues
- identify any potential preliminary maintenance work that could be initiated

ETM to provide input and preliminary maintenance assessment for Program Verification Document

ETM will provide early assessment of potential maintenance issues for future maintenance issues

Task 4: Iterative Modeling: Hydraulics and Hydrology

ETM will provide input with regards to potential maintenance issues with regards to the iterative update done by Limno Tech.

Task 5: Creek Corridor Framework Plan - Meeting #2

ETM to review of Framework Plan and provide analysis and recommendations for:

- Identify potential maintenance issues with regards to slope stabilization and restoration technique , trails and trail materials, planting strategies and any other design or site amenities
- Provide Preliminary memo identifying potential maintenance issues
- Comparative analysis of O+M issues for creek typologies
- Identify future M+O issues for WCC and COA
- Identify future maintenance needs and potential maintenance strategies
- Provide input and review for final Framework Plan
- Provide an order of magnitude M+O budget
- Preliminary identification of programming opportunities
- In consultation with WCC, provide a preliminary maintenance strategy for the Creek Corridor

Task 6: Review Emerging Public and Private Development - Meeting #3

Review potential development scenarios for the Creek Corridor and provide technical memo (s) identifying any maintenance or management issues associated with proposed development and the impact, if any, for WCC.

**Waller Creek Corridor Framework Plan
Austin, Texas**

Fee Proposal

May 9, 2014

PHASE		Principal	Associate	Senior Operations Staff	Operations Staff	TOTAL
		RATE \$ 250.00	\$ 165.00	\$ 105.00	\$ 70.00	
Task 2 Program Verification and Analysis & Meeting #1	Hours	16.00		50.00		66.00
	Amount	\$ 4,000.00		\$ 5,250.00		\$ 9,250.00
Task 4. Iterative Modeling: Hydraulics & Hydrology	Hours	12.00		32.00		44.00
	Amount	\$ 3,000.00		\$ 3,360.00		\$ 6,360.00
Task 5. Corridor Framework Plan & Meeting #2	Hours	16.00		50.00		66.00
	Amount	\$ 4,000.00		\$ 5,250.00		\$ 9,250.00
Task 6. Review Emerging Public and Private Development & Meeting #3	Hours	12.00		36.00		48.00
	Amount	\$ 3,000.00		\$ 3,780.00		\$ 6,780.00
Subtotal	Hours	56.00	-	168.00	-	224.00
	Amount	\$ 14,000.00	\$ -	\$ 17,640.00	\$ -	\$ 31,640.00
Total Before Expenses						\$ 31,640.00
Reimbursed Expenses (Billed at Cost)						\$ 3,164.00



Danielle Choi
Senior Associate
Michael Van Valkenburgh Associates, Inc.
16 Court St., 11th Fl
Brooklyn, NY 11241

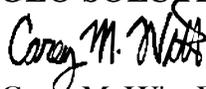
January 22, 2014

Reference: Waller Creek Corridor Framework Plan
Austin, Texas

Dear Ms. Choi:

On behalf of Geo-Solutions, Inc., I wish to thank you for allowing our firm to provide you with a proposal for the Geotechnical Engineering Services related to development of the Waller Creek Framework Plan including expertise on stream restoration and stabilization techniques. The framework will be utilized to guide development activities in the Waller Creek Corridor such that due consideration is given to a beneficial balance between development objectives and the necessity to maintain stream ecology and health while providing for hydraulic capacity, sediment transport and natural geomorphic processes related to urban streams environments. Project details have been discussed during recent discussions with Ms. Danielle Choi of Michael Van Valkenburgh Associates, Inc. and this forms the basis for our work scope. This letter transmits our work scope proposal and required design services fee for this portion of the project. Details of the proposed work scope and cost of our services are described in Attachment A. If this work scope is acceptable to you, please sign and date both copies of the Agreement for Design Services and return one copy to me as our authorization.

If you should have any questions regarding these materials, please feel free to call me. We look forward to working with you and thank you for this opportunity.

Sincerely,
GEO-SOLUTIONS

Carey M. Witt, P.E.
Principal

c:\witt\prop\WallerCreekCorridor.pro

GEO-SOLUTIONS, Inc.
4417 Burleson Road
Austin, Texas 78744
Ph: 512-330-0796 Fax: 512-330-0790
e-mail: cwitt@geosolutionsinc.com

Attachment A: Work Scope Description
Waller Creek Corridor Framework Plan
Austin, Texas

Introduction: We propose to provide expertise related to Streambank Stabilization and Restoration for input into the proposed Waller Creek Corridor Framework Plan. The framework will be utilized to guide development activities in the Waller Creek Corridor such that due consideration is given to a beneficial balance between development objectives and the necessity to maintain stream ecology and health while providing for hydraulic capacity, sediment transport and natural geomorphic processes related to urban streams environments. We will provide the project team with conceptual cross sections and supporting details of alternative streambank stabilization techniques including natural stone and vegetative elements, where practical, to enhance the natural character of the associated stream system. Additionally, we will work with the project team and the involved City of Austin Departments to generate technical memos that will provide additional guidance to development activities in the Waller Creek Corridor. Additionally, we will perform activities and provide review and comments on the various components of the Framework Plan as described in the scope of proposed services Task List below. The proposed streambank structures and techniques will provide erosion protection and earth retention for the selected portions of Waller Creek with consideration given to sustainability and interplay with the associated trails and public venues. The proposed vegetation on the creekbanks may vary from native grass to landscape plantings and will be coordinated with the Project Landscape Architect.

Scope of Proposed Services: (In accordance with the Tasks as listed in the Scope Matrix dated 12/13/2013 as prepared by Michael Van Valkenburgh Associates, Inc.)

Task List:

Task 1: Project Management and Meetings

1.5 Attend COA Internal Stakeholder workshops

Task 2: Program Verification and Analysis

2.1 Attend Kick-off site walk with WPD staff to discuss existing conditions and potential opportunities

2.3 Assist in Plan Documentation (Creek Corridor):

- Identify trails in need of restoration or reconstruction
- Initial draft of new trail alignments
- Confirm significant challenges to streambank stability and conflicts/opportunities in Tunnel-related modifications

2.5 Develop trail alignment strategy - Acting in Review Capacity

- 4.3 Provide recommendations for alternatives and mitigating techniques where bank stability conflicts are identified
- 4.4 Assess impacts of modifications and proposals described in 4.2 and 4.4 on localized bank stability and channel scour, water quality and sediment dynamics, and overall creek corridor hydraulics - Acting in Review Capacity

Task 5: Creek Corridor Framework Plan – Advanced Creek Section Design

- 5.5 Assist in assignment of typical sections to streambank landscape types, stream health restoration and stabilization
- 5.6 Assist in assignment of typologies of top of bank run-off management opportunities
- 5.7 Assist in assignment of typologies of opportunities to modify stormwater outfalls to minimize conflicts with public program and hindrance of public trail access.
- 5.10 Draft (2) Framework Plan Document - Acting in Review Capacity
- 5.11 Final Framework Plan Document - Acting in Review Capacity

Task 6: Development Criteria

- 6.2 Assist in assessment of development plans and potential impacts to proposed public trail alignments, landscape features and public realm.
- 6.5 Provide concept-level recommendations, when applicable, for trail alignments and stabilization strategies

Compensation: The cost of our work, as detailed above is itemized in the attached spreadsheet, Attachment B. (See Attached Manhour/Cost Breakdown).

Method of Compensation: The proposed method of compensation will be hourly billing on a time and materials basis, not to exceed \$14,250.00 without prior approval.

Additional services can be provided in accordance with the attached rate schedule.

We will not perform additional work outside the present work scope without prior consultation and approval.

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ATTACHMENT B
 proposed Cost Breakdown
 GeoSolutions, Inc.
 Project: Waller Creek Corridor Framework Plan
 Austin, Texas

TASK	Principal Engineer (\$150/Hr.)		Technician (\$75/Hr.)		Clerical (\$45/Hr.)		TOTAL COST
	(Hrs.)	(\$Cost)					
DESIGN PHASE SERVICES							
1.5 COA Internal Stakeholder workshops	8	\$1,200.00	0	\$0.00	0	\$0.00	\$1,200.00
2.1 Kick-off site walk with WPD staff to discuss existing conditions and potential opportunities	4	\$600.00	0	\$0.00	0	\$0.00	\$600.00
2.3 Plan Documentation (Creek Corridor): - Identify trails in need of restoration or reconstruction - Initial draft of new trail alignments - Confirm significant challenges to streambank stability and conflicts/opportunities in Tunnel-related modifications	12	\$1,800.00	0	\$0.00	0	\$0.00	\$1,800.00
4.3 Provide recommendations for alternatives and mitigating techniques where bank stability conflicts are identified*	8	\$1,200.00	4	\$300.00	0	\$0.00	\$1,500.00
4.4 Assess impacts of modifications and proposals described in 4.2 and 4.4 on localized bank stability and channel scour, water quality and sediment dynamics, and overall creek corridor hydraulics - Acting in Review Capacity	8	\$1,200.00	0	\$0.00	0	\$0.00	\$1,200.00
5.5 Assign typical sections to streambank landscape types, stream health restoration and stabilization	15	\$2,250.00	8	\$600.00	0	\$0.00	\$2,850.00
5.6 Assign typologies of top of bank run-off management opportunities	5	\$750.00	0	\$0.00	0	\$0.00	\$750.00
5.7 Assign typologies of opportunities to modify stormwater outfalls to minimize conflict with public program and hindrance of public trail access.	5	\$750.00	0	\$0.00	0	\$0.00	\$750.00
5.10 Draft (2) Framework Plan Document - Acting in Review Capacity	4	\$600.00	0	\$0.00	0	\$0.00	\$600.00
5.11 Final Framework Plan Document - Acting in Review Capacity	4	\$600.00	0	\$0.00	0	\$0.00	\$600.00
6.2 Assess development plans and potential impacts to proposed public trail alignments, landscape features and public realm.**	8	\$1,200.00	0	\$0.00	0	\$0.00	\$1,200.00
6.5 Provide concept-level recommendations, when applicable, for trail alignments and stabilization strategies **	8	\$1,200.00	0	\$0.00	0	\$0.00	\$1,200.00

GeoSolutions, Inc.
 4417 Burleson Road Austin, Texas 78744
 512-330-0796

ATTACHMENT B
proposed Cost Breakdown
GeoSolutions, Inc.
Project: Waller Creek Corridor Framework Plan
Austin, Texas

TOTAL	89	\$13,350.00	12	\$900.00	0	\$0.00	\$14,250.00
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* Drawings will include conceptual cross sections and details of stabilization/mitigation solutions and techniques with multiple surface treatments and structure types.

** Item 6.2 and 6.5 represent ongoing analysis and recommendations relative to future development activities. The proposal value represents work associated with 4 projects. Additional project work will result in additional fees based upon our fee schedule.

Danielle Choi

Subject: Waller Creek Corridor
Attachments: Proposal Waller Creek Corridor Framework Plan (3) 1 09 14.pdf; Cost & MH Waller Creek Corridor Framework Plan (3) 01 09 14.pdf; GS Retaining Wall Fee Schedule 2014.pdf

From: Carey Witt [<mailto:cwitt@geosolutionsinc.com>]
Sent: Thursday, January 09, 2014 1:19 PM
To: Danielle Choi
Subject: RE: Waller Creek Corridor

Danielle, Thank you for the feedback. Please see attached revised Proposal and attachments. Our reimbursable expenses will be minimal. We do not anticipate travel expenses relative to the project. If there will be a fee for the workshop, that would apply. Report and Photo Reproduction could be covered here. **Our estimate of Reimbursable Expenses is \$500.00** Please let us know if you need additional information.

Best Regards,

Carey Witt, P.E.
President
GeoSolutions, Inc.
512 775 9488

GEO-SOLUTIONS, Inc.

AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT is by and between

Michael Van Valkenburgh Associates, Inc.

Attn. Ms. Danielle Choi

16 Court St., 11th Fl

Brooklyn, NY 11241

hereinafter called CLIENT and, Geo-Solutions, Inc., 4417 Bureson Road, Austin, Texas 78744 hereinafter called CONSULTANT, who agree as follows:

- 1. CLIENT desires to engage CONSULTANT to provide engineering and related services in connection with CLIENT'S project described as follows and hereinafter referred to as THE PROJECT:

Waller Creek Corridor Framework Plan
Austin, Texas

- 2. CONSULTANT shall provide engineering and related services for THE PROJECT in accordance with the accompanying Work Scope Description (Attachment A) which describes the scope of services and the estimated cost of the services to be provided. The TERMS AND CONDITIONS presented on pages 2 and 3 constitute a part of this Agreement, and by CLIENT'S signature below acknowledges that he has read, understood, and agrees thereto.

EXECUTED THIS _____ day of _____, 2014.

By _____ By
(Signature)


(Signature)

(Printed or Typed Name)

Carey M. Witt, P.E.
(Printed or Typed Name)

Title _____
CLIENT

Title Principal
CONSULTANT

TERMS AND CONDITIONS TO AGREEMENT

ARTICLE 1. SERVICES: CONSULTANT will:

1.1 Act for CLIENT in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with the standards of competent engineering consultants practicing in the same or similar locality of THE PROJECT site.

1.2 Provide only those services that, in the opinion of CONSULTANT, lie within the technical or professional areas of expertise of CONSULTANT and which CONSULTANT is adequately staffed and equipped to perform. It is expressly understood and agreed that CONSULTANT will perform only those services specifically described in any attachment hereto or in any proposal attached hereto as an exhibit.

1.3 Retain pertinent records relating to the services performed for a period of five years following submission of the project design, during which period the records will be made available upon request to CLIENT during normal office hours.

ARTICLE 2. CLIENT'S RESPONSIBILITIES. Client or his designated representative will:

2.1 Provide CONSULTANT full information regarding the structure(s) to be constructed on THE PROJECT site, locations of existing underground utilities on THE PROJECT site, magnitudes and configurations of loads, permissible settlements, planned cuts and fills, proximity to adjacent structures, and design loadings for paving areas and railways, and other information for the proper performance of CONSULTANT, including, but not being limited to, information concerning hazardous materials or conditions existing on the project site of which CLIENT has knowledge or, in the exercise of reasonable diligence, should have knowledge.

2.2 Furnish right of entry onto THE PROJECT site for CONSULTANT to make the necessary field studies. CONSULTANT will endeavor to minimize damage to the land but makes no guarantee to restore the site to its original condition unless a separate agreement is made for such restoration, in which case CONSULTANT shall add the cost of restoration to the fee for THE PROJECT.

2.3 Designate in writing those persons, organizations, or agencies to be contacted in the event conditions are revealed during the execution of CONSULTANT'S design that would

require possible alteration of the design or would potentially influence design that is proceeding in parallel with the design.

ARTICLE 3. GENERAL CONDITIONS:

3.1 CONSULTANT, by the performance of services covered hereunder, does not in any way assume, abridge, or abrogate any of those duties, responsibilities, or authorities with regard to THE PROJECT customarily vested in THE PROJECT architects, design engineers, or any other design agencies or authorities.

3.2 CONSULTANT shall not be responsible for acts or omissions of any other party or parties involved in the design of THE PROJECT or the failure of any contractor or subcontractor to construct any item on THE PROJECT in accordance with the design issued by CONSULTANT.

3.3 This Agreement may be terminated by either party upon service of written notice on the other party or by mutual agreement. If this Agreement is terminated by either party, CONSULTANT shall be paid in full for all services performed through the termination date, and the CLIENT shall be provided with a report of the results of the analysis conducted prior to termination.

3.4 Neither CLIENT nor CONSULTANT may delegate, assign, sublet, or transfer his duties or interest in this Agreement without the written consent of the other party.

3.5 The only warranty made by CONSULTANT in connection with its services performed hereunder is that it will use that degree of care and skill as set forth in Article 1.1. No other warranty, expressed or implied, is made or intended for services provided hereunder.

3.6 This Agreement is binding upon and shall inure to the benefit of the parties hereto, their officers, employees, agents, affiliates, subcontractors, heirs, assigns, and personal representatives.

May 08, 2014

Gullivar Shepard, Principal
Michael Van Valkenburgh Associates
16 Court Street, 11th Floor
Brooklyn, NY 11241

Re: Waller Creek Corridor Framework Plan

Dear Gullivar,

Further to our conversation I am writing re assistance I would provide to MVVA in the preparation of the Waller Creek Corridor Framework Plan. As part of the overall team effort I would take particular responsibility for the preparation of “Program Briefs,” which will evaluate specific future and emerging development sites along the Creek for compatibility with the intent of the MVVA Team Design Plan and corridor restoration strategies that are being developed as part of the framework planning process.

These briefs would be used to anticipate and evaluate possible creek development scenarios for both public and private development along the creek edges, and be developed in association with the MVVA team’s consideration of a range of technical and design issues affecting park development along the length of the Creek. There is a wide range of possibilities, but I anticipate that these briefs will include, but not be limited to::

- Written evaluation of proposed developments with regard to the character of the creek and surrounding district; coordination with City of Austin (WPD, PDRD, PARD) stakeholders as needed
- Written documentation of opportunities for pedestrian and vehicular connectivity both internally and with the surrounding neighbourhoods; description of alternative strategies if proposed site circulation is incompatible with Design Plan or Framework Plan goals.
- Identification of key vistas, and the maintenance and development of these vistas
- Review of proposed development plans and written recommendations for the creation of pedestrian friendly edges, appropriate public space and continuation of public access to and along the Creek
- Written recommendations on building orientation, and program elements
- Meetings in Austin with private developers to describe above recommendations
- Review and comment on MVVA graphic materials produced to support above recommendations
- Facilitation of meetings between adjacent landowners or private developers along the creek corridor with mutual interests or development concerns

You have also requested that I be available to consult on other urban design issues in support of the preparation of the Framework. This would include urban design criteria not only for individual developments, but overarching guidelines district-by-district (e.g. The Lattice, Palm Park, The Narrows, etc.) to advance the groundwork that was laid during the competition.

This work would begin in June 2014 and extend through April 2015.

Given the constantly changing development environment within the creek corridor, it is difficult to identify a pre-determined process or number of meetings for interacting with public and private developers. I would suggest an upset fee for this exercise of \$30,000 based on my per diem of \$2600 plus travel disbursements and applicable taxes. An estimated amount for reimbursable expenses is \$8000, which is based on an estimate of \$1600 per trip (airfare from Toronto to Austin, lodging, ground transportation) for a maximum of (5) trips to Austin. The client will only be billed for reimbursable expenses as accrued, with no mark-up.

An anticipated level of effort will be discussed with MVVA, WCC, and WPD in advance of evaluating or engaging with a particular development site. I hope this approach makes sense and would meet the needs of the project. I look forward to working with you and the Waller Creek Conservancy on this very inspiring initiative.

Sincerely,



Ken Greenberg

Principal

TERMS AND CONDITIONS TO AGREEMENT (Cont'd.)

ARTICLE 4. INSURANCE/RISK ALLOCATION:

4.1 CONSULTANT shall secure and maintain throughout the full period of this Agreement sufficient insurance to protect it adequately from claims under applicable Workers' Compensation Acts and from claims against the CONSULTANT for bodily injury, death, or property damage as may arise from the performance of services under this Agreement. CONSULTANT will, upon request, file certification of such insurance coverage with CLIENT or his authorized representative.

4.2 In acknowledgement of the multitude of risks inherent in providing earth retention structure solutions, and in order to accommodate CLIENT'S need for engineering services at an economical cost to CLIENT, CLIENT and CONSULTANT agree that CONSULTANT'S liability, including attorney fees, to CLIENT for claims arising out of CONSULTANT'S negligent professional acts, errors, or omissions in the performance of services described in this Agreement will be limited to \$50,000 or CONSULTANT'S fee whichever is greater. If the CLIENT prefers to have higher limits of liability, CONSULTANT agrees to increase limits up to a maximum of \$500,000 upon CLIENT's written request provided CLIENT agrees to pay additional consideration of 4 percent of the CONSULTANT'S total fee. CLIENT agrees to indemnify CONSULTANT and hold CONSULTANT harmless from and against any and all such liabilities in excess of said amount.

ARTICLE 5. CONFIDENTIALITY:

5.1 All design drawings and/or information derived as part of CONSULTANT'S analysis shall remain the property of the CONSULTANT.

5.2 The CONSULTANT agrees to consider all analysis results and drawings to be confidential, and will distribute analysis results and drawings only to those persons, organizations, or agencies so directed by the CLIENT with the following exception as described in Article 5.3.

5.3 Analysis Results and drawings and/or information derived as part of CONSULTANT'S analysis may be released to Federal, State, County, or Local authorities where a public safety hazard exists or where applicable statutes and regulations require the CONSULTANT to release information; where the CONSULTANT must comply with judicial court orders; and where CONSULTANT must protect itself from civil claims. In such cases, the CLIENT will be notified in writing of the release of information.

5.4 The CONSULTANT'S analysis, and drawings are for the CLIENT'S sole use and shall not be transferred or sold to others without the knowledge and consent of the CONSULTANT.

6.1 CLIENT will pay CONSULTANT for services and expenses in accordance with the attached fee schedule. CONSULTANT'S invoices will be presented at the completion of its work or monthly and are due on receipt. Failure to pay CONSULTANT'S invoice within 30 days shall result in the addition of late payment charges calculated at a rate of 1.5 percent per month on the unpaid balance.

6.2 CONSULTANT shall be paid in full for all services under the Agreement, including any overruns of CLIENT'S contract or any unforeseen need for CONSULTANT'S services exceeding original contract requirements. The CONSULTANT agrees not to conduct additional work without first discussing its need and reaching an agreement with the CLIENT as to the additional costs to be incurred.

ARTICLE 7. EXTENT OF AGREEMENT:

The Agreement, including these terms and conditions, represents the entire Agreement between CLIENT and CONSULTANT and supersedes all prior negotiations, representations, or agreements, written or oral. The Agreement may be amended only by written instrument signed by CLIENT and CONSULTANT.

ARTICLE 8. APPLICABLE LAW:

The Agreement shall be governed by the laws of the State of Texas. Any disputes arising from this Agreement resulting in legal action shall be performed in Travis County, Texas.

ARTICLE 6. PAYMENT:

Ecosystem Design Group
 Lady Bird Johnson Wildflower Center
 4801 La Crosse Ave
 Austin, Texas 78739
 512.232.0100
 www.wildflower.org

Attachment A: Description of Services

PHASE 1: Creek Corridor Framework Plan

Austin, TX
 March 11, 2014

Scope of Work

The Lady Bird Johnson Wildflower Center's (LBJWC) Ecosystem Design Group will work as sub-consultants to Michael Van Valkenburgh Associates Inc. (MVVA) on efforts regarding the PHASE 1: Creek Corridor Framework Plan for Waller Creek in Austin, Texas. LBJWC services include attending stakeholder workshops, team and board meetings, reviewing materials developed by the team and partners, and providing recommendations on creek corridor opportunities including creek health, bank stability, stormwater treatment, and riparian and upland ecosystem services.

To these ends, LBJWC will bring expertise in local context, native plant communities, riparian systems, and sustainable practices to work with MVVA and their sub-consultants to develop the Creek Corridor Framework Plan.

Work Plan

Below is a work plan individually describing each task needed to carry out the project proposal.

Task 1 – Workshops and Meetings

This task involves attending internal workshops, core team meetings and board meetings. LBJWC will also participate in conference calls or other team meeting phone calls when requested.

- Two (2) City of Austin (COA) internal stakeholder workshops,
- One (1) Waller Creek Conservancy board meeting,
- Internal team meetings and conference calls (5 hours, as needed),
- Review existing documentation of the site provided by Client, third parties, Prime consultant or as publically available,
- Review and comment on Agenda and Meeting Summaries,
- Travel

Cost: \$17,900

Task 2 – Program Verification and Analysis

This task involves working with the Waller Creek Conservancy and COA stakeholders to identify key goals and specific deliverables for the Creek Corridor Framework Plan and determine the criteria for achieving these goals.

Ecosystem Design Group
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 4801 La Crosse Ave
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- Review and comment on plan documentation for the Creek Corridor analysis,
- Review and comment on initial stream restoration and trail alignment strategy,
- Internal team meetings and conference calls (5 hours, as needed),

Cost: \$5,600

Task 4 – Modeling: Hydraulics and Hydrology

This task involves a more detailed development of the Hydraulics and Hydrology modeling. The LBJWC will provide recommendations for alternative and mitigating techniques in areas of the stream where bank stability conflicts are identified by the team. In addition, the LBJWC will review the assessment of impacts of proposed trail alignment on localized bank stability and channel scour, water quality and sediment dynamics, and overall creek corridor hydraulics.

- Review and provide recommendations for alternative and mitigating techniques,
- Review and provide recommendations on impacts of modifications and proposals described in Tasks 4.2 and 4.4
- Review and comment on stormwater outfall modification to mitigate scour and improve water quality,
- Review and provide recommendations on opportunities for in-channel and upland ecosystem services,
- Internal team meetings and conference calls (4 hours, as needed),
- Travel

Cost: \$9,200

Task 5 – Creek Corridor Framework Plan

This task involves the development of the Creek Corridor Framework Plan based on the previous analytical work performed into a written and graphic document. The LBJWC will provide recommendations and feedback on:

- Typical sections to streambank landscape types, stream health restoration and stabilization
- In addition, the LBJWC will review and comment on materials created during this task. These documents and materials include:
 - Typologies of top of bank run-off management opportunities,
 - Typologies of opportunities to modify stormwater outfalls to align with public trail access and program,
- Review and comment on Draft Framework Plan Document (two [2] times), and
- Review and comment on Final Framework Plan Document (two [2] times).
- Provide memorandums with illustrative documentation on alternatives, typologies, ecological opportunities and Framework Plan,
- Internal team meetings and conference calls (10 hours, as needed),
- Travel

Cost: \$29,600

Ecosystem Design Group
 Lady Bird Johnson Wildflower Center
 4801 La Crosse Ave
 Austin, Texas 78739
 512.232.0100
 www.wildflower.org

Schedule

The LBJWC consulting program is strengthened by our research and educational programs. However, this means that our consulting staff has multiple responsibilities and outside commitments beyond consulting. Request for information should keep the center’s structure in mind and advanced notification for information is appreciated.

Fee

This *not-to-exceed* fee represents the total cost for the effort required to complete the services listed above. This fee includes all labor, direct costs, reimbursable, travel expenses, and equipment required to successfully complete the project as outlined above.

Payment for these services shall be made on a monthly basis. LBJWC will invoice fees and reimbursable items separately. The client will be billed for the work completed in the previous 30 days. MVVA is responsible for making payments to the Lady Bird Johnson Wildflower Center within thirty (30) days of receipt of the invoice. If MVVA fails to pay LBJWC within sixty (60) days after the date of the invoice, LBJWC has the right, upon written notice to the MVVA, to stop work on the project until payment of the full amount has been received.

Task 1- Workshops and Meetings	\$ 17,900
Task 2- Program Verification and Analysis	\$ 5,600
Task 4- Modeling: Hydraulics and Hydrology	\$ 9,200
Task 5- Creek Corridor Framework Plan	\$ 29,600
Travel	\$ 200
Total Cost:	\$ 62,500

Additional Services

Services requested by MVVA not included in the above project scope may be requested as need. For additional services, compensation will be billed according to the following hourly rates:

Consulting Rates

Director/Principal	\$200/hour
Project Manager	\$130/hour
Technical Staff:	\$100/hour
Environmental Designer	
Ecologist	
Field Botanist	
GIS Technician	
Travel Time	50% regular hourly

Ecosystem Design Group
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Austin, Texas 78739
512.232.0100
www.wildflower.org

These rates are subject to periodic adjustments.

Ownership of documents

LBJWC has the right to include representations of the design of the project, including photographs and drawings in promotional and professional materials. LBJWC shall not include the Clients confidential or proprietary information if the Clients have previously advised LBJWC in writing of the specific information considered to be confidential or proprietary. The Client shall provide professional credit to LBJWC on promotional or educational materials concerning the project.

Project Cancellation

Either party may cancel the contract without cause with written notice. The consultant is entitled to payment for any supplies that cannot be returned or for services rendered up to the date of cancellation.

Thank you for the opportunity to work with you on this exciting project. Please call us with any questions or needed changes.

Sincerely,

Mark Simmons, Ph.D.
Director, Research and Consulting
ECOSYSTEM DESIGN GROUP
Lady Bird Johnson Wildflower Center

09 April 2014

Mr. Gullivar Shepard
Michael Van Valkenburgh Associates
16 Court St, 11th Floor
Brooklyn, NY 11241

Subject: Anticipated Budget Estimates for Waller Creek Corridor Framework Plan
April 2014 – December 2014

Dear Gullivar,

As requested, this letter provides a summary of scope and budget for LimnoTech's activities for April 2014 – December 2014 for the project referenced above. Project tasks that LimnoTech will be supporting are as follows:

- Task 1 – Project Management and Meetings
- Task 2 – Program Verification and Analysis
- Task 3 – Discovery: Hydraulics and Hydrology
- Task 4 – Modeling: Hydraulics and Hydrology
- Task 5 – Creek Corridor Framework Plan
- Task 6 – Review Emerging Public and Private Development
- Task 7 – Creek Corridor Survey

Description of the scope items for each of these tasks and estimated fees are provided below.

Task 1 – Project Management and Meetings (April 2014 – December 2014)

Project Management

LimnoTech will support MVVA in planning and management of the Waller Creek Corridor Framework Plan and will attend periodic meetings in Austin, Texas as well as biweekly project coordination meetings via telephone or web conferencing. These activities will occur from April-December 2014. Specifically, LimnoTech will provide support on the following subtasks:

1.1 Project Coordination and monthly status reporting with WCC and CoA Core Department Lead Team:

- LimnoTech will provide monthly project status updates to MVVA.
- LimnoTech will participate in bi-weekly Go-To Meetings or teleconference meetings with MVVA and team members for project coordination.

1.2 Project coordination among sub-consultant team:

- LimnoTech will coordinate with members of the sub-consultant team as needed throughout the duration of the project.

1.3 Maintain and update project schedule:

- LimnoTech will provide monthly project updates to MVVA in support of maintaining a current project schedule.

1.4 Coordination of concurrent work in other Phase Plans or WCC projects:

- LimnoTech will coordinate with MVVA on concurrent work in other Phase Plans or WCC projects as needed.

Meeting Attendance Assumptions*1.5 CoA Internal Stakeholder workshops (maximum of 5) and monthly coordination meetings in Austin (includes Kick-off site walk):*

- LimnoTech will travel to Austin up to 4 times for in-person meetings or workshops
- LimnoTech assumes that 2 meetings can be scheduled per business day.
- Two LimnoTech personnel will attend each meeting.
- LimnoTech will develop and provide presentation materials as needed.

1.7 Additional meeting allowance:

- LimnoTech will travel to Austin up to 2 times to attend up to 4 additional meetings as needed in 2014.
- LimnoTech assumes that 2 meetings can be scheduled per business day.
- Two LimnoTech personnel will attend each meeting.

LimnoTech will provide current project scheduling updates to MVVA and team members as needed in 2014. We expect ongoing project coordination with members of the sub-consultant team to fluctuate in frequency depending on project schedule.

Deliverables

- Project Status Reports – Monthly
- Input on Meeting Agendas and Minutes

Assumptions

- LimnoTech assumes that MVVA will prepare meeting agendas and minutes
- LimnoTech assumes that MVVA will coordinate bi-weekly web or telephone-based meetings as well as the periodic in-person meetings in Austin with stakeholders.

Task 2 – Program Verification and Analysis (April 2014 – May 2014)

LimnoTech staff will work with the project team to verify and analyze the current project corridor with respect to hydrology, hydraulics, water quality, and potential solutions. The intent of this work is to develop an understanding of baseline conditions in the corridor and verify assumptions made during the competition phase of the project. LimnoTech's review will build on existing studies and technical documents developed by WPD, and will focus on critical aspects of creek hydrology and geomorphology relevant to the development of a restoration strategy.



2.1 Kick-off site walk with WPD staff to discuss existing conditions and potential opportunities:

- LimnoTech will participate in the Kick-off site walk with WPD. Prior to the walk, LimnoTech will become familiar with materials provided by WPD including the WPD Functional Assessment of Streambank Health, the Lower Waller Creek Field Guide and others. Existing conditions and potential opportunities will be discussed during the walk and related meeting. (Attendance at this meeting is included in subtask 1.5)

2.2 Plan Documentation (Upland):

- LimnoTech staff will provide input on the need for property and easement acquisition or alteration. This input will be based on Waller Creek proposed typical cross-sections, proposed development adjacent to the creek, floodplain elevations, and potential stormwater treatment locations.

2.3 Plan Documentation (Creek Corridor):

- LimnoTech staff will confirm significant challenges to the streambank stability and will identify possible conflicts/opportunities related to tunnel modifications. The existing streambank condition will be documented, as well as critical areas with respect to adjacent infrastructure and streambank stability.

2.4 Establish and verify sections (minimum 2 per block) to be documented in Creek Corridor Framework:

- LimnoTech staff will review preliminary typical creek cross-sections (minimum of 2 per block). The typical cross-sections will be reviewed based on the H&H modeling, stream stability, ecological flows, proposed developments, floodplain elevations, trail location, and property boundary restrictions.

Deliverables

- Memo documenting field notes and findings of the site walk.
- Memo and plan view sketches indicating the potential need for easement acquisition and/or alteration.
- Memo and plan view drawings showing the existing hydrologic and streambank conditions and critical areas to be considered during design.

Task 3 – Discovery: Hydraulics and Hydrology (April 2014 – May 2014)

LimnoTech staff will work with WPD to develop refinements to the existing HEC-HMS and HEC-RAS modeling, including changes to the system since the modeling was completed, addressing areas needing more detailed information, incorporating proposed development changes to stormwater inputs, and other elements that could affect the hydrology and/or hydraulics. The developed set of tools and supporting documentation will be delivered to WPD, and will provide a well-resolved representation of baseline conditions as the design development initiates. The modeling tools and supporting data will serve as a primary basis for technical interaction with the design team during framework plan development.

3.1 Refinement of models for baseline stormwater hydrology; update models to improve resolution of project reaches; review and refinement of surface water-tunnel interactions, and drop shaft performance, as needed:



- The most current HEC-HMS and HEC-RAS models will be refined to include any major modifications resulting from other development within the creek or contributing drainage areas.
- LimnoTech will work with WPD to update HEC-HMS and HEC-RAS models in areas that require additional resolution.
- Representation of surface water – tunnel interactions in the models will be reviewed in order to verify that the models are sufficiently resolved to assess the effects of changes in creek operation and grade line on tunnel performance.

3.2 Disaggregation of stormwater inputs, documentation of changed resolution of input where not originally captured in model (i.e., changes to peaks or timing of storm drain system):

- Currently, stormwater inputs are aggregated into a limited number of flow input locations in the HEC-RAS model. In consultation with WPD, LimnoTech will evaluate the resolution of these inputs and create multiple, separate flow inputs where additional resolution is needed to evaluate creek behavior on a finer scale than is currently possible with the model. Stormwater inputs will be evaluated to understand changes since the latest modeling was completed, and modeling will be refined if there are major changes to the stormwater inputs.

3.3 Evaluation of the capacity to develop an ecological flow regime in Waller Creek

- LimnoTech will work with WPD to establish biological community goals for Waller Creek post-tunnel completion through evaluation of existing water quality data, aquatic community composition (fish and macroinvertebrates), biological multimetrics and wildlife utilization of the Waller Creek Corridor. These goals will establish a foundation for the potential development of an ecological flow regime in Waller Creek.
- LimnoTech will work with WPD to evaluate the possibility of development an ecological flow regime specific to Waller Creek. These flows will consider pump capacity, residence time in the tunnel post-storm event, current water quality and biological community composition and ultimate goals for water quality and the biological community in Waller Creek
- LimnoTech will meet with WPD staff a minimum of 3 times using Go-To meetings or teleconference to discuss data, recommendations and options for developing ecological flows.

3.4 Initial assessment of known proposed development impacts on creek hydraulics, sediment loads and water quality:

- LimnoTech staff will assess the impacts of recent development in the creek corridor, focusing on modifications to the creek and tunnel inlet at Waterloo Park and their influence on creek hydraulics, changes in sediment loads and water quality. Water quality tools may include evaluation of dissolved oxygen a WASP5 model.

3.5 Iteratively update model representation of modified extreme flow scenario:

- LimnoTech will work with WPD to iteratively update model representation of extreme flows under modified scenarios. These evaluated conditions may include flooding conditions in the Colorado River, altered management of Lady Bird Lake, Tom Miller and Longhorn Dams as well as management of excess flow and tunnel inlet/side flow weir failure conditions.



Deliverables

- Memo documenting model updates and results.
- Memo documenting stormwater inputs.
- Memo documenting flow scenarios and recommendations for development of an ecological flow regime in Waller Creek.
- Memo documenting evaluation of known proposed developments with respect to creek hydraulics and water quality.
- Digital versions of HEC-HMS and HEC-RAS model iterations in addition to the version logs and run logs for each.

Assumptions

- LimnoTech assumes that drainage areas in AutoCAD and/or GIS will be provided by CoA.
- LimnoTech also assumes confirmation of the most current version of HEC-RAS model.

Task 4 – Modeling: Hydraulics and Hydrology (April 2014 – December 2014)

Following the development of a strong baseline set of modeling tools in Task 3, LimnoTech staff will work with MVVA and WPS to iteratively update the hydrology and hydraulic modeling to evaluate design concepts, understand conflicts, highlight potential problem areas and potential development impacts, and risk factors based on the revised hydraulics and water surface elevations. Based on this analysis, LimnoTech staff will provide recommendations for creek channel and other structure modifications, and potential mitigation measures to address streambank stability, water quality, scour, and erosion.

H&H Analysis

4.1 Iteratively update HEC-RAS Model with:

- Limnotech will iteratively update the HEC-RAS model to reflect modifications to the Waller Creek Tunnel contract; multiple scenarios for proposed trail and retaining structures, public and private development proposals; and possible modifications to stormwater outfalls.

Risk Analysis

4.2 Risk analysis of public trail system development including frequency of trail inundation:

- Based on the hydraulic modeling and extreme flow scenarios, flood elevations will be provided throughout the stream corridor. This will inform the placement of the trail as well as identify areas that may be subject to more frequent inundation.

Channel Stability

4.3 Provide recommendations for alternatives and mitigating techniques where bank stability conflicts are identified:

- Bank stability techniques will be recommended for each area. The bank stability techniques will be dependent on the property constraints within each reach. In some cases there will likely be conflicts between proposed development, proposed trail, and the stream channel. Recommendations will be provided on a block-by-block basis.



4.4 Assess impacts of modifications and proposals on localized bank stability and channel scour, water quality and sediment dynamics, and overall creek corridor hydraulics:

- Public and private infrastructure proposals will be incorporated into the modeling to understand the impacts on water quality, sediment dynamics, and the overall creek corridor hydraulics. These impacts will be documented in a memo, which will include discussion on the compatibility of the proposed infrastructure on the overall hydraulics and bank stability of the project.

4.5 Identify and evaluate opportunities for stormwater outfall modifications to mitigate scour and improve water quality:

- LimnoTech will identify and evaluate opportunities for stormwater outfall modifications to mitigate scour and improve water quality.

4.6 Identify opportunities for upland and in-channel ecosystem services:

- LimnoTech will evaluate expected improvements to water quality (solids, nutrients, temperature) under the tunnel diversion and implications for improved ecology.
- Opportunities for upland water quality improvements will be identified. Additionally, LimnoTech will review the document produced by the JV Team which describes stormwater retrofit opportunities. Relevant recommendations will be incorporated into proposed modeling scenarios and section design.
- Modifications to stream morphology will be proposed and evaluated. The proposed modifications may include pools, riffles, streambed substrate and other features to improve stream ecology.

Deliverables

- Memo describing model updates and results, public and private infrastructure impacts, project corridor constraints, risk factors in terms of extreme flow events, and bank stabilization and mitigation recommendations.
- Plan view drawings describing multiple scenarios of H&H modeling and text.
- Memo describing model updates and results, public and private infrastructure impacts, project corridor constraints, risk factors in terms of extreme flow events, and bank stabilization and mitigation recommendations.
- Digital versions of HEC-HMS and HEC-RAS model iterations in addition to the version logs and run logs for each.
- LimnoTech will deliver screen shots of interim sections or profiles from the model throughout the iterative modeling and design process.
- LimnoTech will develop and deliver a preliminary plan for upland water quality improvements.

Assumptions

- LimnoTech assumes WPD and CoA stakeholders will perform review roles in Task 4.4.



Task 5 – Creek Corridor Framework Plan (April 2014 – December 2014)

LimnoTech will work with the project team to provide input on the Creek Corridor Framework Plan. LimnoTech will specifically provide information on stream geomorphology, channel stability, streambank stability, stormwater outfall modifications, and opportunities for stormwater harvesting. Natural channel design guidance, HEC-HMS, and HEC-RAS will all be used to evaluate the stream geomorphology and channel stability.

Advanced Creek Section Design*5.1 Document revised trail alignments on private and public land:*

- LimnoTech will review documentation of the revised trail alignments on private and public land.

5.2 Document proposed modifications to retaining structures and sub-grade structures on adjacent parcels:

- LimnoTech will review documentation of the retaining structures and sub-grade structures on adjacent parcels.

5.3 Assign typical sections to streambank landscape types, stream health restoration and stabilization:

- LimnoTech will support MVVA in assigning typical sections of streambank and stream health restoration and stabilization on a block-by-block basis. Ecological function will need to be balanced with anthropogenic needs throughout the stream corridor. Each stream reach will have a different value in terms of ecological function.

5.4 Assign typologies of top of bank run-off management opportunities:

- LimnoTech will provide recommendations on potential opportunities for run-off management for top of bank areas in order to prevent slope erosion from overland flow. This will consist of areas outside of the streambanks that are adjacent to and drain to Waller Creek and could include recommendations for bioretention, surface water collection, diversion, and underground storm water pollution control structures.

5.5 Assign typologies of opportunities to modify stormwater outfalls to minimize conflicts with public program and hindrance of public trail access:

- LimnoTech will provide recommendations on opportunities to modify stormwater outfalls to minimize potential conflicts the public program and trail access.

Synthesis and Documentation*5.6 Comparative analysis of maintenance and operations issues for creek corridor typologies in other public spaces:*

- LimnoTech will review analyses of maintenance and operations issues for creek corridor typologies in other public spaces. Plans for operations and maintenance will be coordinated with the ecological flows strategy and the analysis will include recommendations for the long-term maintenance of variable flows and monitoring of the ecological performance of the system.



5.9 Draft (2) Framework Plan Document:

- LimnoTech will review the Draft Framework Plan Document.

5.10 Final Framework Plan Document:

- LimnoTech will review the Final Framework Plan Document.

Deliverables

- Plan view drawings and text will be provided to MVVA for inclusion in the Creek Corridor Framework Plan.
- Memo will be provided to MVVA with recommendations on potential opportunities for run-off management for top of bank areas.
- Memo will be provided to MVVA with recommendations on opportunities to modify stormwater outfalls to minimize potential conflicts the public program and trail access.
- LimnoTech will deliver plan/profile/sections for each reach.
- LimnoTech will deliver riffle/pool, nested channel cross-sections and bank stabilization typicals for each reach as appropriate.

Task 6 – Review Emerging Public and Private Development (April 2014 – December 2014)

Based on the streambank stability issues and analysis of various stream flow events, LimnoTech will develop criteria for potential and proposed development. The development criteria developed by LimnoTech will address flood elevations and stormwater quality and treatment.

6.1 Review drawings (as outlined in draft Waller District Guidelines Application Form) of private development in the district for compatibility with the objectives of the approved 2013 Waller Creek Design Plan

- LimnoTech will review drawings of proposed private developments for compatibility with the creek design and stormwater goals.

6.2 Assess development plans and potential impacts to public trail alignments, landscape features and public realm.

- LimnoTech will review development plans with respect to potential impacts to landscape features and public realm.

6.3 Review CoA assessment of potential impacts of development plans on creek hydrology.

- LimnoTech will review CoA's assessment of potential impacts of development plans on creek hydrology.

6.4 Assemble relevant information from CoA and WCC to align goals for interaction with specific developments

- LimnoTech will review the specific developments and provide feedback on how the developments align with CoA and WCC goals.

6.5 Provide concept-level recommendations, when applicable, for trail alignments and stabilization strategies

- LimnoTech will provide concept level recommendations for streambank stabilization strategies.

6.6 Participate in conference calls or Go-To Meetings with private developers, CoA, and WCC

- LimnoTech will provide discussion on the compatibility of the private developments with the overall project goals, including hydraulic function and hydrologic support of ecological function.

6.7 Participate in meetings in Austin with private developers, CoA, and WCC

LimnoTech will provide support for meetings with private developers. LimnoTech will focus on compatibility with the proposed creek configuration and hydrologic and hydraulic implications of the proposed development.

6.8 Record relevant alternative development scenarios into Creek Corridor Framework Plan (Task 5)

- LimnoTech will provide input specifically related to the creek corridor, streambank stability, and stormwater inputs.

Deliverables:

- Development Criteria memo with alternative development techniques for streambanks
- Memo with recommendations on streambank stabilization strategies
- Memo(s) describing proposed private developments with respect to compatibility with stream hydraulics

Task 7 – Creek Corridor Survey (February 2014)

LimnoTech's role in Task 7 will be to review documents developed in Subtasks 7.3 and 7.4. These documents will undergo a thorough review by LimnoTech in which written comments will be provided to MVVA.

7.3 Document recommended scope and LOW for survey property lines and easements (scope TBD pending outcomes of program verification):

- LimnoTech will review the recommended scope and LOW for survey property lines and easements.
- LimnoTech will provide written comments of the review to MVVA with discussions as needed to complete the review.

7.4 Document recommended scope and LOW for physical survey (topography, trees, structures, etc.) of critical features and known restoration/trail improvement areas:

- LimnoTech will review recommended scope and LOW for a physical survey.
- LimnoTech will provide written comments of the review to MVVA with discussions as needed to complete the review.

Following review of the physical survey (Subtask 7.3) and RFP (Subtask 7.4) LimnoTech will meet as needed with MVVA to complete the review of these documents.



Information to be provided to LimnoTech

LimnoTech assumes the following will be provided over the course of the project.

- Drainage areas will be provided in AutoCAD and/or GIS
- Property boundaries and easements will be provided in AutoCAD and/or GIS
- Utilities and storm sewer networks will be provided in AutoCAD and/or GIS
- Existing and proposed trail alignments will be provided in AutoCAD and/or GIS

Schedule

LimnoTech staff is available to start work on this project within fifteen (15) days of Notice-to-Proceed.

The proposed tasks extend from March 2014 to December 2014, for a period of 9 months. These tasks will require 2,720 hours/ \$392,500 to complete. A breakdown of the costs by task is provided below.

	Task	Hours	Labor (\$)	Other Direct Costs (\$)	Total Cost (\$)
1	Project Management and Meetings	508	\$77,900	\$22,700	\$100,600
2	Program Verification and Analysis	246	\$28,800	\$15,200	\$44,000
3	Discovery: Hydraulics and Hydrology	414	\$50,800	\$2,800	\$53,600
4	Iterative Modeling: Hydraulics and Hydrology	808	\$93,100	\$4,300	\$97,400
5	Creek Corridor Framework Plan	400	\$48,100	\$2,700	\$50,800
6	Review Emerging Public and Private Development	332	\$41,200	\$3,000	\$44,200
7	Creek Corridor Survey	12	\$1,900	\$0	\$1,900
Total		2,720	\$341,800	\$50,700	\$392,500

We will gladly answer any questions and address your comments regarding the proposed scope and budget.

Sincerely,
LimnoTech

LimnoTech




Tim Dekker, P.E., Ph.D.
Vice President

Dendy Lofton, Ph.D.
Project Manager



Waller Creek Corridor Framework Plan

Task	Subtask	Task Description	Summary of Labor Hours				Summary of Other Direct Costs		TOTAL PROJECT BUDGET
			Sub-Task HOURS	Sub-Task LABOR (\$)	Task HOURS	Task LABOR (\$)	SUB-TASK TOTALS	TASK TOTALS	
Task 1		Project Management and Workshops			508	\$77,900		\$22,734	\$100,634
	1.1	Project Coordination/Status Reporting	116	\$16,720			\$464		
	1.2	Coordination with subs	64	\$9,880			\$256		
	1.3	Maintain project schedule	24	\$2,880			\$96		
	1.4	Coordination with other project phases	48	\$7,360			\$192		
	1.5	COA Internal stakeholder workshops (assumes 4 trips w/2 people & 2 mtgs/trip)	168	\$27,080			\$14,290		
	1.6	Additional meetings (Assumes 2 trips w/2 people & 2 mtgs/trip)	88	\$13,980			\$7,436		
Task 2		Program Verification and Analysis			246	\$28,830		\$15,152	\$43,982
	2.1	Kick-off site walk with WPD	40	\$5,620			\$13,228		
	2.2	Plan documentation (Upland):	58	\$6,590			\$782		
	2.3	Plan documentation (Creek Corridor)	58	\$6,590			\$782		
	2.4	Establish and verify sections	90	\$10,030			\$360		
Task 3		Discovery: Hydraulics and Hydrology			414	\$50,750		\$2,756	\$53,506
	3.1	Model refinement for baseline post-tunnel stormwater hydrology	76	\$9,080			\$854		
	3.2	Disaggregation of stormwater inputs, improved resolution	82	\$9,950			\$878		
	3.3	Evaluation of potential to develop ecological flow regime	72	\$10,600			\$288		
	3.4	Initial assessment of known proposed development impacts (DAM only)	76	\$9,080			\$304		
	3.5	Iteratively update model representation of modified extreme flow scenarios	108	\$12,040			\$432		
Task 4		Modeling: Hydraulics and Hydrology			808	\$93,060		\$4,332	\$97,392
	4.1	Iteratively update HEC-RAS Model	128	\$14,600			\$512		
	4.2	Risk analysis of public trail system development (inundation frequency)	102	\$11,390			\$408		
	4.3	Provide recommendations for mitigation of bank stability conflicts	156	\$17,180			\$624		
	4.4	Assess impacts of modifications and proposals on bank stability, water quality	106	\$12,130			\$974		
	4.5	Identify opportunities for stormwater outfall modifications to mitigate scour/improve water quality	136	\$15,480			\$1,094		
	4.6	Identify opportunities for upland and in-channel ecosystem services; review docs by JV Team on stormwater retrofit opportunities	180	\$22,280			\$720		
Task 5		Creek Corridor Framework Plan			400	\$48,080		\$2,700	\$50,780
	5.3	Document revised trail alignments on private and public lands	22	\$3,190			\$638		
	5.4	Document proposed modifications to retaining structures and sub-grade structures on adjacent parcels	22	\$3,190			\$638		
	5.5	Assign typical sections streambank, landscape types, stream health, restoration, stabilization	82	\$8,450			\$328		
	5.6	Assign typologies of top of bank run-off management opportunities	82	\$8,450			\$328		
	5.7	Assign typologies of opportunities to modify stormwater outfalls to align with trails	82	\$8,450			\$328		
	5.8	Comparative analysis of maintenance and operations issues	22	\$3,190			\$88		
	5.10	Draft (2) Framework Plan Document	44	\$6,580			\$176		
	5.11	Final Framework Plan Document	44	\$6,580			\$176		
Task 6		Development Criteria			332	\$41,240		\$2,978	\$44,218
	6.1	Review drawings of private development in the district	32	\$4,740			\$678		
	6.2	Assess development plans and impacts	24	\$3,580			\$96		
	6.3	Review CoA assessment of potential impacts of development plans on creek hydrology	24	\$3,580			\$646		
	6.4	Assemble info from COA and WCC to align goals	64	\$6,980			\$256		
	6.5	Provide concept-level recommendations for trail alignment and stabilization	84	\$8,680			\$886		
	6.6	Participate in conference calls or Go-To meetings	52	\$6,380			\$208		
	6.7	Participate in meetings in Austin	16	\$2,280			\$64		
	6.8	Record relevant alternative development scenarios into Task 5	36	\$5,020			\$144		
Task 7		Creek Corridor Survey			12	\$1,940		\$48	\$1,988
	7.3	Document recommended scope/LOW for survey property lines and easements	6	\$970			\$24		
	7.4	Document recommended scope/LOW for physical survey of critical features known restoration/trail areas	6	\$970			\$24		
Proposed Budget			2,720	\$341,800	2,720	\$341,800	\$50,700	\$50,700	\$392,500

MVVA FEE PROPOSAL
Creek Corridor Framework Plan
Michael Van Valkenburgh Associates, Inc.
5/9/2014

TASK 1 - PROJECT MANAGEMENT AND MEETINGS (42 weeks)				
Title	Staff and assumptions	Hourly Rate	Hours	Total
President and CEO	3 WCC board meetings, + 1 addl meeting Michael Van Valkenburgh	\$375	32	\$12,000
Principal I		\$300		
Principal II	Gullivar Shepard (2 hrs/wk project management) and 116 hours of meetings. Paul Seck (8 hours) in advisory role. Gullivar Shepard, Paul Seck	\$250	216	\$54,000
Associate Principal		\$225		\$0
Senior Associate I		\$185		
Senior Associate II	5 hrs/wk (project management) and 116 hours meetings Danielle Choi	\$170	346	\$58,820
Associate		\$145		\$0
Senior Project Manager		\$125		\$0
Model Builder		\$110		
Designer		\$95		\$0
Junior Designer		\$85		\$0
Studio Assistant		\$75		\$0
Administrative Staff	6 hrs/week	\$75	276	\$20,700
Intern		\$45		\$0
MVVA Fees				\$145,520

MVVA FEE PROPOSAL

TASK 2 - PROGRAM VERIFICATION AND ANALYSIS (16 weeks)				
Title	Staff	Hourly Rate	Hours	Total
President and CEO	Michael Van Valkenburgh	\$375	8	\$3,000
Principal I		\$300		\$0
Principal II	<i>16 hrs/wk</i> Gullivar Shepard	\$250	256	\$64,000
Associate Principal		\$225		\$0
Senior Associate I		\$185		\$0
Senior Associate II	<i>18 hrs/wk</i> Danielle Choi	\$170	290	\$49,300
Associate	<i>Program Verification document graphics and layout (graphic deliverable)</i>	\$145	60	\$8,700
Senior Project Manager		\$125		\$0
Senior Designer	<i>32 hrs/week for 3 weeks; baseline sections in advance of kick-off walk; incorporation of consultant comments into sections for program verification document</i>	\$115	96	\$11,040
Model Builder	<i>(model allowance)</i>	\$110	48	\$5,280
Designer	<i>40 hrs/week for 3 weeks; graphic advancement of sections and diagramming for program verification document</i>	\$95	120	\$11,400
Junior Designer	<i>drafting typical sections, version control on consultant drawings</i>	\$85	60	\$5,100
Studio Assistant		\$75		\$0
Administrative Staff		\$75		\$0
Intern		\$45		\$0
MVVA Fees				\$157,820

MVVA FEE PROPOSAL

TASK 3 - DISCOVERY - HYDRAULICS AND HYDROLOGY (16 weeks)				
Title	Staff	Hourly Rate	Hours	Total
President and CEO		\$375		\$0
Principal I		\$300		\$0
Principal II	<i>1 hr/week</i> Gullivar Shepard	\$250	16	\$4,000
Associate Principal		\$225		\$0
Senior Associate I		\$185		\$0
Senior Associate II	<i>1 hr/week</i> Danielle Choi	\$170	16	\$2,720
Associate		\$145		\$0
Senior Project Manager		\$125		\$0
Senior Designer		\$115		\$0
Model Builder		\$110		\$0
Designer		\$95		\$0
Junior Designer		\$85		\$0
Studio Assistant		\$75		\$0
Administrative Staff		\$75		\$0
Intern		\$45		\$0
MVVA Fees				\$6,720

MVVA FEE PROPOSAL

TASK 4 - MODELING HYDRAULICS AND HYDROLOGY (36 weeks)				
Title	Staff	Hourly Rate	Hours	Total
President and CEO		\$375		\$0
Principal I		\$300		\$0
Principal II	<i>1.5 hrs/week</i> Gullivar Shepard	\$250	54	\$13,500
Associate Principal		\$225		\$0
Senior Associate I		\$185		\$0
Senior Associate II	<i>1.5 hrs/week</i> Danielle Choi	\$170	54	\$9,180
Associate		\$145		\$0
Senior Project Manager		\$125		\$0
Senior Designer		\$115		\$0
Model Builder		\$110		\$0
Designer		\$95		\$0
Junior Designer		\$85		\$0
Studio Assistant		\$75		\$0
Administrative Staff		\$75		\$0
Intern		\$45		\$0
MVVA Fees				\$22,680

MVVA FEE PROPOSAL

TASK 5 - CREEK CORRIDOR FRAMEWORK PLAN (36 weeks)				
Title	Staff	Hourly Rate	Hours	Total
President and CEO	Michael Van Valkenburgh	\$375	36	\$13,500
Principal I	<i>technical advisory role</i> Laura Solano	\$300	8	\$2,400
Principal II	<i>12 hrs/week</i> Gullivar Shepard	\$250	432	\$108,000
Associate Principal	<i>technical advisory role</i> Peter Arato	\$225	8	\$1,800
Senior Associate I		\$185		\$0
Senior Associate II	<i>14 hrs/week</i> Danielle Choi	\$170	504	\$85,680
Associate	<i>graphic production and layout of framework plan; incorporation of sub-consultant graphic and technical deliverables, presentation drawings</i>	\$145	160	\$23,200
Senior Project Manager		\$125		\$0
Senior Designer	<i>graphics for final document, presentation materials for meetings; perspective renderings (max. 8)</i>	\$115	200	\$23,000
Model Builder		\$110		\$0
Designer	<i>graphic advancement of sections; concept design level-grading, graphic overlays on site photos ("sketch perspectives")</i>	\$95	360	\$34,200
Junior Designer		\$85		\$0
Studio Assistant		\$75		\$0
Administrative Staff		\$75		\$0
Intern	<i>graphics assistance and drafting</i>	\$45	120	\$5,400
MVVA Fees				\$297,180

MVVA FEE PROPOSAL

TASK 6 - Review of Emerging Development (36 weeks)				
Title	Staff	Hourly Rate	Hours	Total
President and CEO	Michael Van Valkenburgh	\$375	12	\$4,500
Principal I		\$300		\$0
Principal II	<i>3 hrs /week</i> Gullivar Shepard	\$250	108	\$27,000
Associate Principal		\$225		\$0
Senior Associate I		\$185		\$0
Senior Associate II	<i>4 hrs/week</i> Danielle Choi	\$170	144	\$24,480
Associate		\$145		\$0
Senior Project Manager		\$125		\$0
Senior Designer		\$115		\$0
Model Builder	<i>development model allowance - max 2</i> John Zack	\$110	120	\$13,200
Designer	<i>diagrams/drafting/graphic support</i> staff TBD	\$95	80	\$7,600
Junior Designer		\$85		\$0
Studio Assistant		\$75		\$0
Administrative Staff		\$75		\$0
Intern	<i>development model allowance - max 2</i> staff TBD	\$45	120	\$5,400
MVVA Fees				\$82,180

MVVA FEE PROPOSAL

TASK 7 - Support for Creek Corridor Survey				
Title	Staff	Hourly Rate	Hours	Total
President and CEO		\$375		\$0
Principal I		\$300		\$0
Principal II	Gullivar Shepard	\$250	8	\$2,000
Associate Principal		\$225		\$0
Senior Associate I		\$185		\$0
Senior Associate II	Danielle Choi / Nik Elkovitch	\$170	16	\$2,720
Associate		\$145		\$0
Senior Project Manager		\$125		\$0
Senior Designer		\$115		\$0
Model Builder		\$110		\$0
Designer	<i>diagram support</i>	\$95	8	\$760
Junior Designer		\$85		\$0
Studio Assistant		\$75		\$0
Administrative Staff		\$75		\$0
Intern		\$45		\$0
MVVA Fees				\$5,480

MVVA FEE PROPOSAL

TASK 8 - Preliminary Engineering Cost Estimate Support				
Title	Staff	Hourly Rate	Hours	Total
President and CEO	2nd and final draft review Michael Van Valkenburgh	\$375	4	\$1,500
Principal I	Technical review of 2nd and final drafts Laura Solano	\$300	4	\$1,200
Principal II	initial review, 2nd draft review, final draft review; coordination calls with cost estimator Gullivar Shepard	\$250	24	\$6,000
Associate Principal		\$225		\$0
Senior Associate I		\$185		\$0
Senior Associate II	narrative descriptions of materials and design intent not included in Framework Plan, initial review, 2nd draft review, final draft review; identification of reference details/products/projects and Danielle Choi / Nik Elkovitch	\$170	48	\$8,160
Associate		\$145		\$0
Senior Project Manager	compiling relevant typical details and scaled reference project drawings, product information, supporting diagrams not included in Framework Plan documentation	\$125	40	\$5,000
Senior Designer		\$115		\$0
Model Builder		\$110		\$0
Designer	diagram support	\$95	12	\$1,140
Junior Designer		\$85		\$0
Studio Assistant		\$75		\$0
Administrative Staff		\$75		\$0
Intern		\$45		\$0
* Fees may be re-apportioned to subconsultant team as needed for review				
MVVA Fees				\$23,000

MVVA FEE PROPOSAL

MVVA TOTAL FEES (ALL TASKS)	\$740,580
MVVA TOTAL REIMBURSABLES (ESTIMATED)	\$69,990
\$1300 for 2-day person-trip (assumes maximum 32 person-trips). Also includes allowance for materials for (2) models and estimate of printing expenses (including 10 hard copies of Framework Plan Document).	
MVVA TOTAL FEES AND REIMBURSABLES	\$810,570

January 23, 2014

Gullivar Shepard
Principal
Michael Van Valkenburgh Associates, Inc.,
16 Court Street, 11th Floor
Brooklyn, NY 11241

Re: Proposal for Soil Science Consulting Services
Waller Creek Corridor Framework Plan

Dear Mr. Shepard:

Olsson Associates (Olsson) is pleased to submit this proposal to Michael Van Valkenburgh Associates (MVVA) to provide soil science expertise and support for the planning and design of the Waller Creek Corridor in Austin, Texas. Our proposal provides costs for proposed tasks that you identified to us to support you with the planning and design along Waller Creek.

In support of this project, Mr. Theodore Hartsig, CPSS, a senior soil scientist will provide soil science expertise to achieve your project requirements. Mr. Hartsig has more than 30 years experience in soil restoration and management, including remediation of drastically disturbed landscapes in urban areas, restoration of prairies, woodlands, and riparian soil for ecological re-establishment, mine reclamation, and support of landscape design features. He has provided service in sustainable sites development and in measures of carbon sequestration, including writing the protocols for verification of carbon credits.

Our attached cost proposal includes the task items that you identified for the planning and design for Waller Creek. Each task item includes estimated labor and costs. We are prepared to begin work immediately at our direction. If you have any questions regarding this proposal, please do not hesitate to call me at 913-748-2615 (direct line to my office), or 913-908-5159 (cell phone). We appreciate this great opportunity to work with MVVA on this important project, and hope that we can contribute to your success.

Sincerely,



Theodore A. Hartsig
Certified Professional Soil Scientist/Project Manager

**WALLER CREEKI
PROPOSED COST ESTIMATE**

Description of Work Items/Tasks	LABOR HOURS				TOTAL HOURS	LABOR FEE	Expenses
	Sr Sci	Assoc Eng	Proj Sci	Assoc Sci			
Project Management and Meetings	24				24	\$3,360	1,327
1.6 Team Meetings (2), incl Kickoff meeting (2 trips total)	24						1,327
Program Verification and Analysis	8				8	\$1,120	
2.6 Review Stream Restoration and Trail Alignment Strategy	8						
Discovery: Hydroautics and Hydrology	6				6	\$840	
3.7 Review Initial Assmt of known proposed development impacts	6						
Modeling Hydraulics and Hydrology	12				12	\$1,680	
4.3 Provide recommendations for alternatives and mitigating techniques	6						
4.4 Review assessment of modifications and proposals from 4.2 and 4.4	6						
Creek Corridor Framework Plan	30				30	\$4,200	0
5.5 Assign typologies to streambank health restoration & stabilization	12						
5.10/5.11 Review Draft and Final Framework Plan Document	18						
Development Criteria	4				4	\$560	0
6.5 Review Concept-level recommendations for trail alignments/stabilization	4						
TOTAL HOURS	84	0	0	0	84		
TOTAL LABOR COST	\$11,760	\$0.00	\$0.00	\$0.00		\$11,760	
TOTAL EXPENSES							\$1,327
TOTAL COST (Labor and Expense)							\$13,087

Assumptions

1. Project Management includes team meetings at the project site within 2 trips to the site (including travel expenses), including the initial team kick-off meeting and walk through (Tasks 1.6 and 2.1), and team meetings
2. Potential weekly team meetings (via phone calls) are not included
3. Task 5 - Creek Corridor Framework Plan - includes time for design and document reviews, team discussions, and responses

General Comment: Assessment of soil conditions along the Waller Creek project area will address potential soil issues that could impact stream restoration and stabilization and walking path placement, including potential soil stability issues (erodibility, bank stability, soil consistency), soil chemical considerations (nutrient potential, salt-affected soils, pH, etc.), and potential for supporting vegetation. Preliminary assessments are assumed to be limited to field testing (soil probe, field pH, EC, etc), with collection of samples for more detailed assessment if potential problems are discovered.

Project Management and Meetings	Project Deliverable
1.6 Team Meetings (2), incl Kickoff meeting (2 trips total)	1. Technical memorandum regarding observed soil conditions, including field characterization. Samples will be collected for submittal to testing labs to address soil conditions if necessary and approved by client. 2. Summary memoranda from team meetings regarding project objectives and potential soil impacts and/or soil management concerns.
Program Verification and Analysis	
2.6 Review Stream Restoration and Trail Alignment Strategy	1. Technical memorandum addressing soil management for stream restoration, including soil stability, bank stabilization, and vegetation establishment. 2. Technical memorandum addressing soil concerns or opportunities related to trail alignment.
Discovery: Hydroautics and Hydrology	
3.7 Review Initial Assmt of known proposed development impacts	1. Memorandum summarizing review comments related to potential soil management considerations.
Modeling Hydraulics and Hydrology	
4.3 Provide recommendations for alternatives and mitigating techniques	1. memorandum with recommendations for addressing soil management issues and mitigation.
4.4 Review assessment of modifications and proposals from 4.2 and 4.4	1. memorandum summarizing review comments.
Creek Corridor Framework Plan	
5.5 Assign typologies to streambank health restoration & stabilization	1. memorandum and figures showing soil issues related to streambank health and restoration.
5.10/5.11 Review Draft and Final Framework Plan Document	1. memorandum with review comments.
Development Criteria	
6.5 Review Concept-level recommendations for trail alignments/stabilization	1. memorandum with review comments.

**Creek Corridor Framework Phase Plan
Capital Needs Projections**

EXHIBIT U

	Total Fees	Total Reimbursable Expenses
	\$ 1,673,290	\$ 154,141
Month	Fees	Reimb Exp
1	\$ 100,000	\$ 15,000
2	\$ 130,000	\$ 8,000
3	\$ 150,000	\$ 10,000
4	\$ 165,000	\$ 10,000
5	\$ 160,000	\$ 10,000
6	\$ 165,000	\$ 10,000
7	\$ 165,000	\$ 10,000
8	\$ 160,000	\$ 10,000
9	\$ 125,000	\$ 10,000
10	\$ 100,000	\$ 10,000
11	\$ 73,658	\$ 10,000
12	\$ 73,658	\$ 10,000
13	\$ 105,974	\$ 28,141
	\$ 1,673,290	\$ 151,141
<p>*These projections will fluctuate in response to adjustments in work flow. These numbers do not include the Reserve Funds.</p>		

EXHIBIT "G"

M/WBE REQUIREMENTS

- (a) The Managing Party shall comply with the applicable standards and principles of the **M/WBE Program Ordinance** in the design and construction of Projects, provided, however, Contractors and their subcontractors under contracts executed and delivered by the Conservancy as of the date of this Agreement for the scope of work contemplated in the Design Plan approved by City Council shall not be required to comply with this Exhibit G. A change in the scope of work or Contractors or subcontractors, including adding Contractors or subcontractors shall require compliance with this Exhibit G. Prior to any changes or additions the Managing Party shall consult with and provide SMBR information regarding the proposed change in scope or change or deletions of Contractors or subcontractors to determine the necessary steps to achieve compliance with the M/WBE Program.

With respect to any design or construction projects for a Project, the Contractors shall meet the gender and ethnic-specific participation goals or subgoals for each year in which design or construction occurs as determined by the Director of SMBR in accordance with the M/WBE Program Ordinance and rules. Before advertising a bid for any portion of the design or construction work, the Managing Party shall submit to SMBR a copy of a proposed solicitation in order for the City to determine the gender and ethnic-specific participation goals or subgoals for the project. The determination by the Director shall be based on the proposed size, type and scope of work to be undertaken by the Managing Party and described in the bid documents, and the availability of each group of M/WBEs to perform elements of the work. The City may utilize either the cumulative M/WBE goal or the subgoals for each group of minority persons in the proposed solicitation, or set M/WBE participation goals for each Project as provided in City Code Section 2-9A-19 (*Establishment of MBE/WBE Participation Levels for Individual Contracts in Construction*), or as may subsequently be modified, amended or replaced. The Director shall have 10 Business Days from receipt of a bid package from the Managing Party in order to evaluate and determine the required level for utilization of M/WBE project or phase-specific goals or subgoals, and shall notify the Managing Party in writing of the Director's determination.

In an effort to meet the gender and ethnic-specific M/WBE utilization goals, the Managing Party shall implement an outreach program designed to solicit participation of M/WBEs. These outreach efforts should also target small businesses generally. The Managing Party may seek the assistance of SMBR in these outreach efforts as described in paragraph (b) below.

For any year in which the Managing Party, the Contractors fail to meet each of the goals or subgoals established by the Director, the Managing Party, the Contractors must demonstrate good faith efforts to meet the goals as described in the M/WBE Program Ordinance. The Managing Party shall submit documentation demonstrating its own and

the Contractors' good faith efforts to meet the goals as is required under the following paragraph (d). If the Managing Party provides documentation to SMBR evidencing its own and its Contractors' good faith efforts, the Managing Party shall be deemed in compliance with this paragraph (a). Failure to perform this obligation shall be considered a material breach of this Agreement. The City acknowledges that this obligation does not require the Managing Party to modify, nullify or abrogate any contracts that the Managing Party has entered into before the Effective Date of this Agreement.

- (b) The Managing Party shall apprise SMBR when the Managing Party desires assistance from SMBR in its efforts to meet the gender and ethnic specific M/WBE utilization goals. This assistance may include providing a list of certified M/WBE firms from which the Managing Party may solicit or cause the Contractors to solicit participation in the design and construction of any improvements, identifying potential scopes of work, establishing the bid packages, scheduling and hosting outreach meetings, and assisting the Managing Party, its Contractors in soliciting M/WBE firms to provide bids. The Managing Party is not required to solicit participation during a period in which the Managing Party is not engaged in designing and/or constructing a Project, but rather, the Managing Party is required to incorporate the standards and principles of the M/WBE Program Ordinance including the foregoing M/WBE utilization goals into its development process as and when such process exists in connection with a Project.
- (c) The Managing Party shall provide monthly reports to SMBR no later than the 10th day of each month to track (i) the utilization on a percentage basis of M/WBE firms in the design and construction of the Projects; and (ii) a summary of the Managing Party's efforts to implement the standards and principles of the M/WBE Program Ordinance. SMBR shall provide the forms to be used by the Managing Party in submitting such reports.
- (d) Within thirty (30) days of receipt of the Managing Party's final monthly report (as is required under paragraph (e) above for the preceding year, January 1st through December 31st (the "**SMBR Compliance Period**"), SMBR shall determine whether the Managing Party is in compliance with the requirements of this **Exhibit "G"**.

Waller Creek Project
Approved Consultant List

Firm	Discipline	MWBE
2 x 4	signage consultant	
Access Partnership	accessibility specialist	
ACI Consulting	environmental consulting	
Altieri Sebor Wieber	mechanical, electrical, plumbing	
Altura Solutions	accessibility specialist	
American Construction Investigations	ADA consultant	
Applied Ecological Services	ecologist, bank stabilization	
Architectural Engineers Collaborative	structural engineer	
Arup USA Inc.	AV, Acoustical, lighting, IT, security	
Atelier 10	sustainability consultant	
Benz Resource Group	project management	WBE
Big Red Dog	civil engineering	
Brierly Assoc	geotech engineering	
CCM Consulting Group	construction auditing	
Chan & Partners	civil engr: subsurface utilities	
Charles Marsh Woodruff	geologic consulting	
Construction Specifications, Inc	specifications consultant	
Davey Resource Group	arborist	
Development Strategies	economic development	
Dr W. Todd Watson	plant pathologist	
Eckersley Cladding Consultant	exterior cladding	
EEA Consulting	mechanical, electrical, plumbing	
ETM Associates	public space management	
Fluidity Design Consultants	water feature consulting	
GeoSolutions	geotech: slope stability	
Greenberg Consultants	urban design	
Guy Nordenson & Assoc	structural engineer	
Haynes Whaley Associates	structural engineer	
Henshell & Buccellato	waterproofing consultant	
Heritage Title Company	title and easement research	
HNTB	bridge design	
HNTB	traffic engineering	
Holt Engineering	geotech engineering	
Horton Lees Brogden Lighting	lighting	
HR&A	economic development	
Hydrodramatics	water feature consulting	
Israel Berger and Associates	waterproofing consultant	
James Pole Irrigation Consultants	irrigation	
JGL Food Services Consultants	food service consultant	
Joshua Long	geographer	
Lady Bird Johnson Wildflower Center	ecologist, native plantings and management strategies	
Limnotech	hydrologist	
McGray & McGray	site surveying	
Metcalf Williams Stuart & Wolff	land use, zoning	
Michael Van Valkenburgh Assoc	landscape architect	
Olsson Assoc	soil scientist & ecosystem	
Persohn/Hahn Associates	elevator consultant	
Piscatello Design Centre	signage consultant	
ProjectProjects	graphic design	
Reginald Hough, FAIA	architectural concrete consultant	
Rolf Jensen & Associates	code consultant	
Shah Smith and Associates	commissioning agent	
Simpson Gumpertz & Heger	waterproofing consultant	
Skidmore, Owings & Merrill	structural engineer	
Stuart Lynn	cost estimating	
Studio DWG	landscape architect	
Sustainable Growth Texas	soil biology	
Terracon	geotech engineering	
Theatre Consultants Collaborative	theatre consultants	
Thomas Phifer & Partners	architect	
Tillett Lighting Design	lighting	
Transsolar Inc	sustainability consultant	
Urban Design Group	civil waterworks	WBE
Vermeulens	cost estimating	



City of Austin

Founded by Congress, Republic of Texas, 1839
Watershed Protection Department
P.O. Box 1088, Austin, Texas 78767

May 19, 2014

Gretchen Flatau
Waller Creek Conservancy
P.O. Box 12363
Austin, Texas 78711

Subject: Waller Creek District – Creek Corridor Framework Phase Plan City Contribution

Dear Gretchen:

The City of Austin (City) will contribute an amount not to exceed \$1,877,431 toward the Waller Creek District: Creek Corridor Framework Phase Plan (CCFPP). In accordance with Section 10.01 (Project Disbursement Fund Account) of the Joint Development Agreement between the City of Austin (City), Waller Creek Local Government Corporation, and Waller Creek Conservancy (Conservancy), based upon the review of invoices submitted to the City for completed work, the City will deposit its contribution to the Project Disbursement Fund in the amount necessary to support timely payments for the City's respective portion. Deposits to the Project Disbursement Fund will be made upon approval of each invoice. The Project Disbursement Fund Account will be managed by the Conservancy and payments to Michael Van Valkenburgh Associates, Inc. and associated sub-consultants will be the sole responsibility of the Conservancy. Any request for change will require an amendment to the approved project and require approval of the Proposing Party and the Responding Party.

The funding provided by the City is via Drainage Utility Fee revenues transferred to the Watershed Protection Department capital budget. Drainage Utility Fee revenues are restricted to ensure they are used only for purposes directly related to the mission and operations of the Watershed Protection Department as the City's Municipal Drainage Utility System, in accordance with State law. As such, all invoices submitted for the CCFPP must only be for services that maintain the City's compliance with these restrictions. Invoices submitted by the Conservancy will be reviewed to ensure alignment with both restriction on uses of funds as well as the agreed upon scope of work for the CCFPP.

Sincerely,

Kimberly Springer, Deputy Budget Officer
Financial Services Department